







REPORT ON  
SURVEY OF LABOUR CONDITIONS  
IN MACHINE TOOL FACTORIES  
IN INDIA



LABOUR BUREAU  
MINISTRY OF LABOUR AND EMPLOYMENT  
GOVERNMENT OF INDIA



**LABOUR BUREAU**

**MINISTRY OF LABOUR AND EMPLOYMENT**

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## PREFACE

Industrial labour and its problems have been the subject of interest, though varying in degree and extent, ever since India entered the industrial field over a century ago. Today, this interest has shifted from prevention of exploitation of labour to providing a fair deal and opportunities for a fuller life to labour. The growing realisation of this approach to problems of labour in India in the context of present-day planned economic development of the country, is provided a sound base by the Surveys that reveal true conditions of labour.

The last detailed survey on a country-wide basis of the working and living conditions of industrial labour was conducted by the Labour Investigation Committee appointed by the Government of India in 1944. The years that followed witnessed far-reaching changes in the set-up of the country, its basic policies and national objectives. As a result, the long term strategy for economic and industrial advance recognises the well-being of the working class as an essential factor in the overall stability and progress of the country. The adoption of this policy, in the changed circumstances of the country, has brought about a new awakening in the ranks of labour and afforded them much relief in various directions through legislation and other measures.

In order to assess the impact of these measures on the industrial labour and to appraise their present conditions, a scheme for a comprehensive Survey of Labour Conditions was incorporated in the Second Five Year Plan and its execution was entrusted to the Labour Bureau. The Survey was conducted according to a phased programme in 46 industries.\* This report presents data regarding Machine Tool Factories covered under the scheme during 1960-61.

The present Survey differs considerably from similar investigations in the past in matters of design, scope and presentation of data. It has also certain distinguishing features. For example, it furnishes data separately for large and small establishments in various industries, makes a limited study of labour cost in relation to the benefits and amenities that the workers now enjoy, seeks to fill the gap in the statistics of labour turnover and absenteeism in the factory industries and provides first-hand information on certain important aspects of labour-management relations. Attempt has also been made to collect

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\*The names of 46 industries are given in the Preface (page iii) attached to the report on Survey of Labour Conditions in Silk Factories in India.



and interpret data on certain conventional items in a more meaningful way. In the presentation of the data, the effort has been to reduce the information into quantitative terms so as to serve as a bench-mark for purpose of evaluation of changes at a future date. Recourse to general description has been resorted to only where the other type of treatment was not possible.

In a Survey of this magnitude it was but natural that many problems had to be faced both in planning as well as execution. Most of these flowed from non-availability of up-to-date frames and absence or improper maintenance of records in many establishments. In many cases the field staff had almost to build up the required statistics from various sources. This naturally imposed a heavy demand on the managements and the Bureau is deeply indebted to them for their whole-hearted co-operation. The co-operation and valuable assistance received from associations of employers and workers, Labour Commissioners as well as Chief Inspectors of Factories and other officials of State Labour Departments is also gratefully acknowledged.

The debt of gratitude that I owe to the Central Statistical Organisation and the Chief Adviser of Factories for evincing keen interest in the Survey and rendering technical advice on various matters is indeed great. I am also thankful to the Employment Division of the Planning Commission for examining the schedules and instructions and offering useful suggestions. I am equally grateful to the Bureau of Labour Statistics, U.S.A. (Social Surveys Division), Ministry of Labour and Social Service, U.K., Economics and Research Branch, Department of Labour, Canada and Labour Statistics and Research Division, Ministry of Labour, Japan, whose advice was sought on several technical matters.

The primary responsibility for conducting this Survey and bringing out the reports on individual industries was ably borne by Shri B. N. Srivastava, Deputy Director, whose experience and application came into full play in this assignment. On various statistical problems arising out of the Survey, the requisite technical advice was provided to him by other officers at the Headquarters. In the drafting of this report also, he received valuable assistance from Shri Mahesh Chandra, Investigator Grade-I. Sarvashri S. P. Gupta and B. P. Singla, Computers assisted in computation of data. The field investigations were carried out by Sarvashri R. K. Kapoor, R. C. Malhotra, H. K. Goigna, N. D. Puri, P. C. Aggarwal, H. G.

Tehri, R. K. Pillay, N. K. Basu, K. C. Sharma, S. Roy, Kirpal Singh, S. S. Kaul, R. L. Bembey and S. L. Khanna under the supervision of Sarvashri R. N. Mukherji, G. B. Singh, Harbans Singh, H. G. Gupta and K. Lakshminarayanan. To these all my thanks are due.

The views expressed in this report are not those of the Ministry of Labour and Employment, Government of India.

K. C. SEAL  
*Director.*

LABOUR BUREAU, SIMLA; }  
*Dated, the 11th August, 1964.* }



## CHAPTER I

### INTRODUCTION

#### 1.1. Origin and Growth of the Industry :

The Machine Tool Industry\* is most vital in the industrial set up of any country inasmuch as it provides the basic machines for the industrial production. Indeed, it is an indispensable pre-requisite for the development of a country. Though in India the Machine Tool Industry is still in infancy, it is not of a recent origin. The available information would show that the industry had its origin in the beginning of the century, when some units in Punjab started manufacturing machine tools for their own requirements. However, the real growth and expansion of the industry actually started only after the Second World War. Till the beginning of the World War II, most of the country's requirements were met by imports. But with the outbreak of the Second World War the import of the machine tools became difficult. The need for replacement and expansion programmes attracted Government's attention for promoting indigenous production. The first step which the Government of India took to improve the situation was the passing of the Machine Tools Control Order, 1941. It also appointed a Machine Tool Controller to promote the growth and development of the industry in a systematic manner. Some of the important measures taken by Government for promoting the growth of the industry were (i) strict control on import of machine tools, (ii) encouraging the expansion of productive capacity of leading manufacturing firms by arranging to supply high quality of machine tools required by them, (iii) offering to purchase their entire production provided it came up to the required standards, and (iv) offering the services of the Machine Tool (Inspection Branch) of the Industries and Supplies Department to test and inspect, by charging a nominal fee, machine tools classified as Grade I, II and III as also ungraded machine tools manufactured in the country. The steps taken by the Government had noticeable effect and by 1945 there were 25 factories manufacturing graded machine tools and 183 establishments ungraded items. Increase in the number of factories had its effect on production also. In the year 1942, the total number of machine tools manufactured was 316, of which 273 were graded. The figure rose to 8,810 in 1946 of which 4,121 were graded. The value of graded tools alone was Rs. 113 lakhs.

The industry faced somewhat depressing conditions after the termination of the Second World War. Not only the defence needs ceased to exist but large quantities of army stores were declared surplus and made available for sale. Moreover, competition from foreign manufacturers threatened the very existence of the industry. Naturally, there was a demand for the grant of protection and the manufacturers approached the Government in 1946. After an examination of the industry in July, 1947, the Tariff Commission recommended State help and also imposition of a protective duty of 25 per cent. *ad valorem* on machine

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\*Under the Machine Tools Control Order, 1941 the Machine Tool Industry is defined as follows:—

"Machine Tool includes all mechanical contrivances for cutting, forming, abrading, polishing or otherwise working or treating wood or metal or plastics materials such as bacalite, any standard equipment usually sold therewith and any machinery ancillary to the operation thereof."

tools. The State help was in the shape of an assurance that as far as possible machine tools produced indigenously would be purchased by the Government of India provided they were of the required standard and quality. Besides this indirect help, the Government shielded the nascent industry by levying restriction on imports until 31st March, 1950. This protection by means of restriction on imports was continued till the balancing position was attained by the manufacturers. One of the other recommendations made by the Commission was appointment of an Advisory Committee consisting of representatives of manufacturers, importers and main consumers of machine tools. The main idea behind the constitution of such a committee was that it should render advice to Government on various important problems of the industry and to suggest measures for solving them. The Advisory Committee recommended by the Tariff Commission was appointed but unfortunately its tenure was very short-lived. It was later on dissolved and substituted by an Association of the Industry. Even today it exists in the form of a Development Council, which looks after the interests of the industry. It comprises the representatives of Government, manufacturers and importers.

Ushering of an era of planned economy after the country gained Independence and increasing stress on the need for developing basic industries and rapid industrialisation gave the Machine Tool Industry a new sense of importance. Not only active assistance was given to the development of the industry but also the State itself embarked upon setting up of large machine tool factories. As a result, by the end of 1951 the total number of machine tool factories registered under the Factories Act increased to 174 with a total employment of 6,118. The industry made substantial progress during the First Plan period and by the close of it (*i.e.*, 1956) the number of registered factories had arisen to 202 and the number of workers employed therein to 10,521, thus recording an increase of 16 per cent. over the 1951 figures in the case of factories and 72 per cent. in the working force. The overall capital investment in the industry during the First Plan period was Rs. 306 crores. The industry continued to maintain its momentum and by the close of the Second Five Year Plan period the number of registered factories increased to 483 recording a rise of 139 per cent. and the number of workers employed therein to 20,051 showing an increase of 91 per cent. over the 1956 figures\*. During the Second Five Year Plan period the overall capital investment stood at Rs. 1,376 crores, showing an increase of 349.7 per cent. over First Plan figures.

## 1.2. Structure and Location of the Industry :

The industry as it exists in the country at present, comprises large-scale factories both in the public as well as private sectors as also small-scale units, all of which are privately owned. While the large-scale units are generally engaged in the production of graded machine tools, small-scale establishments are not only manufacturing machine tools but also other items *e.g.*, agricultural implements. No information is available regarding the number of such small establishments but it is understood that most of them are located in Punjab.

From the returns received from the State Governments under the Factories Act, it would appear that the industry is scattered throughout the country. The following Statement shows the distribution of machine

\*Source.—The Journal of Industry and Trade, December, 1962, pp. 2021–22.

tool factories in various States during 1959 and 1961 and the number of workers employed therein:

### STATEMENT 1.1

*State-wise Distribution of Machine Tool Factories and Workers Employed Therein, During 1959—61.*

State	Number of factories		Average daily employment	
	1959	1961	1959	1961
(i)	(ii)	(iii)	(iv)	(v)
1. Andhra Pradesh . . .	4 (1.2)	2 (0.4)	1,313 (9.9)	1,498 (7.5)
2. Bihar . . .	2 (0.6)	2 (0.4)	22 (0.2)	32 (0.2)
3. Gujarat . . .	*	13 (2.7)	*	637 (3.2)
4. Maharashtra . . .	*	32 (6.6)	*	3,926 (19.6)
5. Kerala . . .	...	3 (0.6)	...	112 (0.6)
6. Madras . . .	3 (0.9)	5 (1.0)	74 (0.6)	105 (0.5)
7. Madhya Pradesh . .	21 (6.3)	20 (4.2)	1,465 (11.0)	1,260 (6.3)
8. Mysore . . .	3 (0.9)	6 (1.2)	1,594 (12.0)	2,612 (13.0)
9. Punjab . . .	188 (56.6)	298 (61.7)	3,797 (28.6)	6,047 (30.1)
10. Uttar Pradesh . .	10 (3.0)	15 (3.1)	155 (1.2)	339 (1.7)
11. West Bengal . . .	17 (5.1)	23 (4.8)	1,037 (7.8)	1,476 (7.3)
12. Delhi . . .	49 (14.8)	64 (13.3)	1,251 (9.4)	2,007 (10.0)
13. Bombay . . .	35 (10.6)	...	2,553 (19.3)	...
TOTAL . . .	332(100.0)	483(100.0)	13,261(100.0)	20,051(100.0)

NOTE.—The figures shown in brackets are percentages.

Source.—Factories Act returns for the year 1959-61.

\*Gujarat and Maharashtra States did not exist in 1959.

### 1.3. Genesis of the Survey :

The first comprehensive survey into the conditions of labour in various industries in India was conducted by the Royal Commission on Labour during 1929—31. On the basis of its report and findings, various ameliorative measures were introduced by the Government in the labour field. After a lapse of over a decade, *i.e.*, in 1944, the Government of India appointed another Committee, *viz.*, the Labour Investigation Committee to enquire into the conditions of labour in all important industries. The Committee conducted detailed investigation in 38 industries during 1944-45 and, besides a main report, submitted detailed reports on conditions of labour in each industry surveyed by it. The years which followed,

witnessed many changes of far-reaching significance. For instance many legislative measures were introduced to improve working and living conditions and several schemes were enforced for promoting welfare and social security of workers. The setting up of the adjudication machinery also led to an improvement in the conditions of work and wages in various industries. The most significant change was the attainment of Independence by the country in 1947, which granted a new status to the working class. With a view to evaluating and assessing the effects of the various measures adopted, the Ministry of Labour and Employment as well as the Planning Commission considered it necessary that a comprehensive survey of labour conditions in various industries should be conducted. Such a Survey, it was felt would help in obtaining a precise picture of the existing conditions and problems of labour and to help Government in deciding the future course of action. Consequently, a Scheme for the conduct of a Survey of Labour Conditions was included in the Second Five Year Plan and the Labour Bureau was entrusted with its execution. At the time the Labour Investigation Committee conducted the enquiry the Machine Tool Industry was still in infancy and was not very important from the point of view of employment. It was probably for this reason that the Committee did not cover this industry. However, since now it has developed significantly and employs over 20,000 workers, it was considered desirable to include it in the scope of the present Survey.

#### **1.4. Scope and Design :**

Since there was no complete list of all machine tool factories in the country, it was decided that the scope of the Survey should be restricted to factories registered under the Factories Act, 1948. In the absence of any high degree of localisation, no stratification, by regions or centres was attempted. However, since the past experience of surveys in other industries had shown that wide variations existed in conditions of work, standards of welfare, amenities, etc., in the units of different size groups in each industry, it was felt that it would be useful to have separate data for units of different sizes. It was, therefore, decided that for purposes of the Survey units of the Machine Tool Industry should be divided into two size groups—large and small. For purposes of classifying units into large and small size, the stratification point used for the Wage Census conducted by the Bureau in 1958-59 was used. The point used for the Wage Census was arrived at on the basis of a study of optimum allocation and was very near to the average employment. On this basis all machine tool factories employing 25 or more workers were treated as large establishments and the rest as small.

As regards the sample size, 25 per cent. of the large size units were thought to be adequate to yield reliable results. However, in the course of the Wage Census conducted by the Bureau it was noticed that a large number of samples could not be canvassed either because of their changing the line of production or because some of them went out of business before they could be canvassed. In order to safeguard against the possible shrinkage of the sample size due to the above-mentioned contingencies, the sample size was enlarged in the light of the Wage Census experience and on the basis of a study of closures for the past few years as revealed by the annual list of registered machine tool factories. The sampling fraction ultimately adopted was 33.3 per cent. for the large factories. In case of small factories it was 16.8 per cent.

The following Statement shows the number of machine tool factories with the number of workers employed therein (a) in the frame, (b) in the sample, and (c) samples actually covered.

### STATEMENT 1.2

*Number of Machine Tool Factories and Persons Employed Therein as in the Frame and as actually covered.*

Size	In the frame (year 1958)		In the sample selected		In the sample ultimately covered as given in 1958 frame	
	Number of factories	Number of workers employed	Number of factories	Number of workers employed	Number of factories	Number of workers employed
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
(a) Large Factories	78	8,241	26(33.3)	3,018(36.6)	22(28.2)	2,803(34.0)
(b) Small Factories	197	2,734	33(16.8)	453(16.6)	26(13.2)	357(13.1)
ALL FACTORIES	275	10,975	59(21.4)	3,471(31.6)	48(17.4)	3,160(28.8).

NOTE.—Figures in brackets are percentages to respective totals in cols. (ii) and (iii).

It may be seen from the figures given in the above Statement that the Survey finally covered 17.4 per cent. of machine tool factories and 28.8 per cent. of the workers employed therein. Since only those factories came in the sample as featured in the frame as it was not possible to take account of new factories which came into being during the period of the Survey, the information given in this report should be treated to relate to conditions in the factories which were in existence during the period to which the frame related, and which continued to exist at the time of the Survey.

The data for the Survey were collected by the Bureau's field staff by personal visits to the sampled establishments. With a view to testing the schedule\* and instructions prepared for the Survey as also to impart training to the field staff, a pilot enquiry was conducted in September and October, 1959. On the basis of the experience gained, the schedule and instructions were suitably revised. The main field enquiry was launched late in December, 1959 in this industry and the Survey was completed in June, 1961. Hence the information collected, except where specifically mentioned should be treated to relate to this period.

\*The schedule used for the Survey has been given as Appendix II in the Report on Survey of Labour Conditions in Silk Factories in India.



## CHAPTER II

### EMPLOYMENT

#### 2.1. Composition of the Working Force :

With a view to maintaining comparability of statistics collected from different factories, data pertaining to employment were collected for a specified data *i.e.*, 31st December, 1959. On the basis of the data collected it is estimated that the total number of workers employed in the industry was 12,417 on 31st December, 1959. This estimate slightly differs from the statistics of the Factories Act, for the year 1959\*, largely due to the fact that it relates to a particular point of time, whereas the Factories Act figures represent the average daily employment during the year. Another reason for the difference is that the above estimate also includes employees not deemed by the managements to be covered under the Factories Act. The Survey results show that such employees numbered 663, *i.e.*, 5.3 per cent. of the total estimated working force on 31st December, 1959.

#### 2.2. Distribution by Broad Occupational Groups :

The following Statement gives the estimated total number of employees by broad occupational groups in the Machine Tool Industry, as on 31st December, 1959. For purposes of this Survey, the classification of occupations used was "International Standard Classification of Occupations" as adopted by the International Labour Organisation.

#### STATEMENT 2.1

*Estimated Distribution of Workers by Broad Occupational Groups on 31st December, 1959*

Size	Total working force in the industry as on 31-12-59	Professional, Technical and Related Personnel	Administrative, Executive and Managerial Personnel	Clerical and Related Personnel (including Supervisory)	Production and Related Workers (including Supervisory)	Watch and Ward and Other Services
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
a) Large Factories	9,218 (100.0)	405 (4.4)	124 (1.3)	688 (7.5)	7,351 (79.8)	650 (7.0)
b) Small Factories	3,199 (100.0)	41 (1.3)	14 (0.4)	117 (3.7)	2,952 (92.3)	75 (2.3)
ALL FACTORIES	12,417 (100.0)	446 (3.6)	138 (1.1)	805 (6.5)	10,303 (83.0)	725 (5.8)

\*The working force in the industry according to the Factories Act returns 1959 was 13,261 *vide* Statement No. 1.1 Chapter I.

NOTE:—(i) The figures shown in brackets are percentages to column (ii).  
(ii) Data relate to both 'covered' and 'not covered' workers under the Factories Act.

As in the case of most of the industries, the labour force in the Machine Tool Industry comprised predominantly "Production and Related Workers" which accounted for nearly 83 per cent. of the total. "Clerical and Related Personnel" constituted the next important group and formed 6.5 per cent. of the total, followed by "Watch and Ward and Other Services" (5.8%), "Professional, Technical and Related Personnel" (3.6%) and "Administrative, Executive and Managerial Personnel" (1.1%). From the figures given in the Statement it would be noticed that in small factories the percentage of "Production and Related Workers" was much higher (92.3) as compared to large factories (79.8) and that percentage of persons in other groups was lower.

A "worker" has been defined under the Factories Act, 1948 as "a person employed, directly or through any agency, whether for wages or not, in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process, or in any other kind of work incidental to or connected with, the manufacturing process, or the subject of manufacturing process". In the course of the Survey it was found that the interpretation of the definition differed not only between different managements but also Factory Inspectorates and as a result certain persons in all the groups except "Production and Related Workers" were reported by the managements to be not covered under the provisions of the Act. The number of such persons is estimated to be 663 *i.e.*, 5.3 per cent. of the total working force on 31st December, 1959. Of this number, 14.8 per cent. belonged to the "Administrative, Executive and Managerial Personnel", 40.3 per cent. to "Professional, Technical and Related Personnel", 16 per cent. to "Clerical and Related Personnel" and the rest were in the group "Watch and Ward and Other Services".

### 2.3. Employment of Women and Children :

The Statement given below shows the relative employment strength of men, women and children in the industry:—

#### STATEMENT 2.2

*Estimated proportion of Men, Women and Children in the Working Force as on 31st December, 1959.*

Size (i)	Estimated number of workers employed			
	Men (ii)	Women (iii)	Children (iv)	Total (v)
(a) Large Factories . . . . .	9,160 (99.4)	58 (0.6)	..	9,218
(b) Small Factories . . . . .	3,192 (99.8)	7 (0.2)	..	3,199
ALL FACTORIES . . . . .	12,352 (99.5)	65 (0.5)	..	12,417

NOTE.—(i) Figures shown in brackets are percentages.

(ii) Data relate to both 'covered' and 'not covered' workers under the Factories Act.

From the figures given above it would be evident that the working force in the industry consisted predominantly of men. Women constituted only a negligible proportion to the total working force in the industry

and child labour was entirely absent. The insignificant number or proportion of women workers is evidently due to the fact that most of the processes in the industry are strenuous in nature. As in the case of many other industries in the country, women employed in the Machine Tool Industry were mostly in the group "Production Workers". The group accounted for about 61 per cent. of the total number of women. Thirty-four per cent. were in the group "Watch and Ward and Other Services" and the remaining were in the group "Professional, Technical and Related Personnel". Thus not a single woman was employed in the capacity of "Administrative, Executive or Managerial" or as a clerk. All women falling in the group "Production Workers" were mostly engaged on light and odd jobs such as removing of wastes, cleaning the work places, etc. Those in the group "Watch and Ward and Other Services" were engaged in general departments. About 4 per cent. of women were in the group "Professional, Technical and Related Personnel" and all of them were medical personnel.

No specific reasons were given by the managements for employing woman workers. Some of the employers stated that they had employed some women earlier to do some light and odd jobs and continued to retain them in view of long service already put in by them. Others said that they found women to be good enough for doing light work and hence employed them.

#### 2.4. Time and Piece-rated Workers :

Both the systems of payment, *i.e.*, time as well as piece-rates, were prevalent in the industry. Almost 96.7 per cent. of production workers employed in the industry were being paid on time-rate basis. The remaining workers were piece-rated. The following Statement gives the proportion of time and piece-rated production workers :—

##### STATEMENT 2.3

*Estimated Percentage of Time and Piece-rated Production Workers—December, 1959.*

	Size	Time-rated	Piece-rated
	(i)	(ii)	(iii)
(a) Large Factories	. . . . .	97.8	2.2
(b) Small Factories	. . . . .	94.2	5.8
ALL FACTORIES	. . . . .	96.7	3.3

#### 2.5. Contract Labour :

The following Statement gives details regarding employment of contract labour in the industry. It will be seen that though a significant proportion (*i.e.*, 13.6%) of factories employed contract labour, the percentage of such workers in the industry was not very high. Such workers constituted only a small proportion of the total number of workers in the industry. A notable feature, however, was that the system was more in vogue in small establishments. The percentage of small factories employing contract labour was 15.4 as against 9.1 among large factories, and they accounted for nearly two-thirds of the total number of workers employed through contractors in the industry.

# STATEMENT 2.4

## Estimated Volume and Extent of Contract Labour in Machine Tool Industry—December, 1959.

Size	Number of factories*	Percentage of factories employing contract labour	Estimated number of persons employed in the industry		Estimated total number of workers employed through contractors	Percentage of workers employed through contractors to total employed	
			Covered as well as not covered under the Factories Act	Covered under the Factories Act		Covered and not covered under the Factories Act	Covered under the Factories Act
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
(a) Large Factories . . . .	69	9.1	9,218	8,576	91	1.0	1.1
(b) Small Factories . . . .	175	15.4	3,199	3,178	178	5.6	5.6
ALL FACTORIES . . . .	244	13.6	12,417	11,754	269	2.2	2.3

\*This number does not tally with the number of factories during 1961 given in Statement 1.1. The difference is due to the fact that only those factories which continued to exist till the time of Survey were covered.

Contract labour, was mostly employed for some of the production processes such as moulding, welding, building, shearing and cutting and casting. In some cases they were also engaged on fitting and turning jobs. The main reasons given by the employers for employing contract labour instead of direct labour were as follows:—

- (a) Elimination of botheration of exercising supervision and control.
- (b) It was economical to employ contract labour for work of a casual or irregular nature.
- (c) It was more convenient to entrust standard items of work to contractors on fixed terms. This ensured them delivery of items at the specified time at a known cost.

## 2.6. Employment Status :

In the course of the Survey information was also collected regarding employment status of production workers employed directly by the managements and covered under the Factories Act. The information collected is presented in the Statement 2.5. It may be pointed out that the basis of classification of workers into permanent, temporary, probationers, *badli*, casual, etc., was according to the definitions contained in the Standing Orders framed under the Industrial Employment (Standing Orders) Act, 1946. However, since only those establishments which employed more than a certain specified number of workers were under an obligation to frame Standing Orders, all establishments did not have such orders. Even among those which were under an obligation to frame them, a few had not done so. Therefore, wherever Standing Orders had not been framed, reliance was placed on the information given by the employers.

### STATEMENT 2.5

*Estimated Distribution of Production Workers employed directly by  
Employment Status—December, 1959.*

Size	Esti- mated number of produc- tion workers	Perma- nent	Proba- tioners	Tempor- ary	<i>Badli</i>	Casual	Appren- ties	Others
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	7,260	75.1	1.9	14.7	..	1.4	4.7	2.2
(b) Small Factories	2,774	46.9	2.5	40.7	..	2.5	7.4	..
ALL FACTORIES	10,034	67.3	2.0	21.9	..	1.7	5.5	1.6

In the country, as a whole, 67.3 per cent. of the workers were permanent, 21.9 per cent. temporary, 5.5 per cent. apprentices and the remaining were probationers, casual, etc. The proportion of permanent workers in large factories was higher as compared to small establishments.

## 2.7. Length of Service :

Statistics relating to the length of service of production and related workers (including supervisory personnel) employed directly by the managements and covered under the Factories Act, were collected and the details are given in the following Statement. Under the Factories Act employers are required to maintain a leave register showing the date of appointment of each employee. However, it was found that very few factories maintained such registers and even among those who maintained them many did not record the date of appointment. In such cases other sources e.g., the records maintained in connection with the Employees' State Indurance Scheme, were utilised but where none of the sources were available, reliance had to be placed on the management and the information was recorded as given by them.

### STATEMENT 2.6

*Estimated Distribution of Production Workers Employed Directly According to Length of Service—December, 1959*

Size	Estimated number of production workers	Percentage of workers with a service of			
		Less than 1 year	1 or more but less than 5 years	5 or more but less than 10 years	10 years and over
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories . . .	7,260	21.2	30.9	21.4	26.5
(b) Small Factories . . .	2,774	63.5	27.4	7.6	1.5
ALL FACTORIES . . .	10,034	32.9	29.9	17.6	19.6

In the industry, as a whole, it is estimated that 32.9 per cent. of the production workers had put in less than one year's service, 29.9 per cent. one year or more but less than five years' service, 17.6 per cent. five or more but less than ten years' service, and 19.6 per cent. had put in a service of 10 or more years. Statistics show that the proportion of workers with longer service was higher in large factories. In small establishments a large majority of the workers had less than one years' service. The main reason for higher proportion of workers with shorter length of service in small factories seems to be lower rates of wages in such establishments. The managements generally stated that as soon as workers found more attractive terms in other factories they quitted their jobs. In some of the establishments allegations were made that the managements deliberately effected breaks in service to avoid some of the legal liabilities. Another factor responsible for higher proportion of workers with shorter length of service may be the fact that the Machine Tool Industry is a new industry and many of the establishments came into existence only within the last few years.

## 2.8. Absenteeism :

The following Statement shows the absenteeism rate in the industry during the year 1959. Data collected relate only to production workers employed directly, excluding *badli* and casual employees.

### STATEMENT 2.7

*Estimated Absenteeism Rate in Machine Tool Industry during 1959.*  
(In percentages)

Months	Large Factories	Small Factories	All Factories
(i)	(ii)	(iii)	(iv)
January . . . . .	10.4	10.2	10.3
February . . . . .	10.9	11.2	10.9
March . . . . .	12.6	11.5	12.3
April . . . . .	14.0	10.4	13.0
May . . . . .	13.5	10.8	12.7
June . . . . .	12.4	13.0	12.6
July . . . . .	8.6	10.6	9.2
August . . . . .	8.8	10.2	9.2
September . . . . .	9.3	9.2	9.2
October . . . . .	9.6	10.1	9.7
November . . . . .	10.7	12.0	11.1
December . . . . .	9.5	10.5	9.8
AVERAGE—1959 . . . . .	10.8	10.8	10.8

In the country, as a whole, the absenteeism rate ranged from 9.2 to 13 per cent, the lowest being in the month of July, 1959 and highest in April, 1959. The average for the year 1959 was 10.8 per cent. It was found that the rate of absenteeism increased during harvesting and sowing seasons and also during summer months. As the record of absences by causes was not kept by the units, it was not possible to collect statistics by causes. Except for some variations in the rates during certain months, there was no difference in the absenteeism rate in large and small factories.

## 2.9. Labour Turnover :

In the course of the Survey, data relating to labour turnover was collected for the entire year 1959 in respect of production workers (excluding unpaid apprentices and casual workers) employed directly by the

managements. The results obtained regarding accession and separation rates are given in the following Statement:—

### STATEMENT 2.8

#### *Estimated Accession and Separation Rates in Machine Tool Industry during 1959*

Month	Accession Rate*			Separation Rate*		
	Large Factories	Small Factories	All Factories	Large Factories	Small Factories	All Factories
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
January . . .	4.1	11.8	6.2	2.8	7.3	4.0
February . . .	4.4	9.4	5.7	4.0	10.6	5.8
March . . .	4.0	11.3	6.0	4.2	16.2	7.4
April . . .	5.0	15.2	7.7	6.4	17.3	9.3
May . . .	5.4	14.5	8.1	3.9	12.7	6.5
June . . .	4.3	14.2	7.0	4.7	11.0	6.4
July . . .	3.7	16.2	7.1	4.2	17.2	7.7
August . . .	3.8	10.0	5.4	3.5	11.1	5.5
September . . .	2.3	11.4	4.7	3.4	11.7	5.6
October . . .	2.6	14.1	5.8	2.5	8.6	4.2
November . . .	4.4	16.1	7.7	2.8	13.2	5.7
December . . .	3.5	11.2	5.5	2.9	17.9	6.9
AVERAGE—1959 . . .	3.9	13.0	6.4	3.8	12.9	6.3

\*In percentages.

The monthly average accession and separation rates in the industry, as a whole, was 6.4 and 6.3 per cent. respectively during the year 1959. As between different months the rate ranged from 4.7 to 8.1 per cent. in the case of accessions and between 4 and 9.3 per cent. in the case of separations. Labour turnover was fairly high in small factories. Whereas in large factories the overall accession as well as separation rate was about 4 per cent. in small factories it was nearly 13 per cent.

An attempt was also made in the course of the Survey to collect data on separation by causes. However, it was found that records maintained in this respect were not very satisfactory and reliance had to be placed on the information given by the managements. The information collected is given in the following Statement:—

### STATEMENT 2.9

#### *Showing the Estimated Percentage of Separations by Causes in Machine Tool Industry during 1959*

Causes	All Factories (Percentage)
(i)	(ii)
Discharge or Dismissals . . . . .	17.0
*Quits . . . . .	82.8
Retirement, Death, etc. . . . .	0.2

\* "Quits are termination of employments initiated by employee because of acceptance of jobs elsewhere, dissatisfaction, marriage, maternity, ill-Health unauthorised absence etc."



As is evident from the Statement given above, 82.8 per cent. of separations were on account of workers quitting their jobs and 17 per cent. due to discharge or dismissals. The percentage of separations on account of retirement or death, etc., was quite insignificant.

## 2.10. System of Recruitment :

The most common practice in the industry was to make recruitment directly at the factory gate and it was rarely that the management had to take recourse to other methods. The results of the Survey show that about 94 per cent. of the factories in the country were recruiting all categories of workers directly at the factory gate. The remaining factories employed workers, either through departmental heads, labour office or through employment exchanges. The Survey also revealed that in about 4 per cent. of the factories, in addition to recruiting workers at the factory gate, some categories of workers were being recruited through employment exchanges. The category of workers recruited through the exchanges were generally apprentices.

It may be mentioned here that in all the small establishments the recruitment was made only at the factory gate. Other systems of recruitment (*i.e.*, through labour contractor, *mastries* or jobbers) were not at all prevalent in the industry.

The results of the Survey show that *badli* labour was not at all employed in the industry. Employment of casual labour was very insignificant as only 4.2 per cent. of the total factories were found employing such workers and these workers formed only a negligible percentage of the total production workers.

## 2.11. Training and Apprenticeship :

An encouraging feature of the industry, as revealed by the Survey, is the existence of wide-spread system of training and apprenticeship. It is estimated that nearly 31 per cent. of the machine tool factories had arrangements for the training of workers. Such facilities existed more among large establishments than in small ones, their respective percentages being 41 and 27. The most common occupations for which training was being imparted were fitting, turning, foundry, welding and smithy. Of the establishments providing training facilities, only 10 per cent. had regular schemes. Elsewhere there was no systematic arrangement and training was being imparted on an *ad hoc* basis.

Usually opportunities for receiving training were open to general public but the managements exercised their discretion in selecting the candidates. In very few establishments preference was given to nominees of Employers' Associations or Government. However, 26.7 per cent. of the establishments providing training facilities stated that they preferred candidates who had already received some training in institutes run by Government. Except for certain jobs like drawing and designing and founding, no educational qualifications were insisted upon.

The period of training varied from job to job and ranged from 6 months to 5 years. Nearly three-fourths of the factories imparting training were paying some remuneration to trainees. The rates at which payment

was being made varied from factory to factory and at times within a factory from trade to trade. In large factories the rates ranged from Rs. 21 to Rs. 75 per month and in small factories from Rs. 10 to Rs. 50 per month. Only in 4 per cent. of the large establishments, arrangements existed for supplementing on-the-job training with theoretical courses. Nearly one-fifth of the factories giving training insisted upon a written contract and in about 6 per cent. there was only a verbal contract between the managements and trainees. However, 75 per cent. of the factories guaranteed regular employment to their trainees after they successfully completed the training course.

## CHAPTER III

### WAGES AND EARNINGS

#### 3.1. Wage Revisions and Minimum Rates of Wages :

There has been no standardisation of wage rates in the Machine Tool Industry on a country-wide basis and consequently it was noticed in the course of the Survey that the rates of wages generally varied not only from one centre of the industry to another but at times even between different units in the same centre. Except in Punjab, everywhere the wage structure existing in the units was found to have developed either on the basis of the prevailing rates of wages in the area or was the results of bargaining between employers and workers. In Punjab, the State Government had brought the industry within the purview of the Minimum Wages Act and had fixed the minimum rates of wages for broad categories of workers in 1958. The minimum all-inclusive monthly rate fixed was Rs. 60 for unskilled, Rs. 80 for semi-skilled Grade I and Rs. 68 for semi-skilled Grade II workers. The order issued by the State Government fixed Rs. 35 per month as the minimum wage for learners. As regards apprentices it laid down that those who held a certificate or diploma should be paid Rs. 2.25 per day or Rs. 58.50 per month after six months' service. These rates became effective from 1st April, 1958. However, the results of the Survey show that a large number of factories in Punjab were not paying the minimum wages fixed under the Act.

At the time of the Survey the majority of the factories (*i.e.*, 77%) belonging to large size were found paying consolidated wages to their workmen and the rest were paying basic wage and dearness allowance separately. Where consolidated wages were being paid, the lowest-paid men workers were getting between Re. 0.83 to Rs. 2.31 per day. However, in a vast majority the consolidated wages of such workers ranged between Re. 1.00 and Rs. 2.00. Women workers in large factories were in receipt of Rs. 1.37 per day (consolidated). In large factories, where basic wage and dearness allowance were being paid separately, the rate per day ranged from Rs. 1.37 to Rs. 3.75 consisting of Re. 0.91 to Re. 1.00 as basic wage and the remaining amount as dearness allowance. About 96 per cent of small factories paid only consolidated wages which ranged from Re. 0.77 to Rs. 3.46 per day. However, the majority of lowest-paid workers were getting between Rs. 1.15 to Rs. 2.31 per day. The remaining small establishments were paying basic wage and dearness allowance separately to their lowest-paid workers. The amount worked out to Rs. 3.83 per day consisting of Rs. 1.53 as basic wage and Rs. 2.30 as dearness allowance. The upper limit of the wage rates of the lowest-paid workers in small as well as large factories very nearly correspond mainly because all the units, both large and small, where such high rates were being paid were located in high wage pockets *e.g.*, Bombay and Delhi. Moreover, the workers in Bombay were also having an advantage of higher daily allowance which was paid to them on the basis of the consumer price index numbers. Another reason responsible was that the jobs on which the lowest-paid workers were employed by the managements directly were mostly of unskilled nature (*i.e.*, *Mazdoors*, *Beldars*, etc., whereas in small factories generally such unskilled workers did not feature and the lowest-paid workers usually comprised of skilled or semi-skilled workers (*viz.*, *Hammermen*, *Fitters* and *Turners*) and consequently their rates of payment were higher.

In the course of the Survey information was collected in respect of the number of wage revisions affecting majority of workers in the sampled establishments since 1956, and the results are given in the following Statement. It would be noticed that wage-revisions were effected only in a very few factories in the country and the overall percentage of such factories was about 16. Among the factories where there were wage revisions, in nearly 76 per cent. the revision took place only once, in 17 per cent. twice and in about 7 per cent. of establishments three times. In none of the small factories there were more than one wage revision.

### STATEMENT 3.1

*Estimated Percentage of Machine Tool Factories According to the Number of Wage Revisions Since 1956.*

Size	Estimated percentage of factories where there were wage-revisions	Percentage of factories in which revision took place since 1956		
		Once	Twice	Thrice
(i)	(ii)	(iii)	(iv)	(v)
(a) Large Factories .	27.5	50.0	35.0	15.0
(b) Small Factories .	11.4	100.0	—	—
ALL FACTORIES	16.0	75.6	17.1	7.3

Information was also collected during the Survey on methods used for effecting wage revisions. Statistics contained in the Statement given below would show that nearly 63 per cent. of the wage revisions in the industry since 1956 were mainly as a result of agreements between employers and employees, about 12 per cent. by unilateral action of the employers and in 20 per cent. by the executive orders of the Government. All such factories, where wage revisions took place through executive orders of the Government were located in Punjab State alone. The executive orders refer to the Minimum Wages Act passed by the Punjab Government, a mention of which has already been made above. Only in about 6 per cent. of the cases the revisions were effected as a result of adjudication or arbitration awards. This shows that the method of adjudication or arbitration was sparingly used in the industry and it was confined only to large establishments.

### STATEMENT 3.2

*Estimated Percentage of Wage Revisions According to Methods Used For Effecting Them.*

Size	Discretion of Employers	Agreements between Employers and Employees	Conciliation	Adjudication or Arbitration Awards	Executive Orders of the Government
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories .	19.3	61.3	—	9.7	9.7
(b) Small Factories .	—	65.0	—	—	35.0
ALL FACTORIES	11.8	62.7	—	5.9	19.6

In large factories, 80 per cent. of the revisions effected basic wages of the workers and only 20 per cent. of revisions related to dearness allowance. All these revisions were as a result of collective agreements. In small factories all the revisions related only to basic wages.

### 3.2. Pay Periods :

The predominant pay period in the industry was a month and it covered about 93 per cent. of the workers in the country. The percentage of workers who were being paid once in a fortnight and once in a week was only 1.6 and 5.8 respectively. The details are given in the following Statement :—

#### STATEMENT 3.3

##### *Estimated Distribution of Workers According to Pay Periods.*

Size	Percentage of workers whose pay period was		
	Month	Fortnight	Week
(i)	(ii)	(iii)	(iv)
(a) Large Factories . . . .	92.1	—	7.9
(b) Small Factories . . . .	94.2	5.8	—
ALL FACTORIES . . . .	92.6	1.6	5.8

The usual practice in large machine tool factories was to settle wages once in a month and only about 8 per cent. of workers were paid on a weekly basis. In small factories the percentage of workers paid on a monthly basis was higher as compared to large establishments. The pay period of about 6 per cent. of the workers in small factories was other than a month and all of them were paid fortnightly.

### 3.3. Average Daily Earnings :

In the course of the Survey, data were collected pertaining to the earnings by broad groups of workers *e.g.*, all workers (covered under the Factories Act), all production workers (separately for men, women and children), lowest-paid workers employed directly as well as under contractors, clerical employees and watch and ward and other related workers. In order to maintain comparability of the data, information relating to earnings was collected for one wage period immediately preceding 31st December, 1959, the month in which the Survey was launched. As the Bureau had already conducted a detailed Occupational Wage Survey in 1958-59, no attempt was made to collect earnings data of workers by occupations. The information so collected is presented in the Statement given on the next page.

## STATEMENT 3.4

*Estimated Average Daily Earnings of Workers in Machine Tool Factories in December, 1959.*

(In Rupees)

Size	All workers*	Production workers			All production workers
		Men	Women	Children	
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories ·	4·48	4·43	2·67	—	4·42
(b) Small Factories ·	3·54	3·55	2·12	—	3·55
ALL FACTORIES ·	4·24	4·19	2·58	—	4·19

\*Includes all covered under the Factories Act.

The average daily earnings of all workers in the Machine Tool Industry in December, 1959 were Rs. 4.24, whereas the average daily earnings of 'production workers' were only Rs. 4.19 in the whole country. Among production workers, the average daily earnings of men and women in the industry were Rs. 4.19 and Rs. 2.58 respectively. The average earnings of men and women were Rs. 4.43 and Rs. 2.67 per day respectively in large factories and the corresponding figures for small factories were Rs. 3.55 and Rs. 2.12. The main reason for differences in the earnings of workers in large factories and small factories seems to be that large factories were generally located in big cities, where the cost of living and consequently the wage level was high whereas small factories were generally located in small cities or *mofussil* areas which were low wage pockets. The Statement 3.5 gives the earnings of the lowest-paid production workers in the industry.

### STATEMENT 3.5

*Estimated Average Daily Earnings of Lowest-Paid Production Workers in the Machine Tool Industry during December, 1959.*

Size	(In Rupees)											
	Employed directly				Employed through contractors				All Lowest paid workers			
	Men	Women	Children	All Workers	Men	Women	Children	All Workers	Men	Women	Children	All Workers
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)
(a) Large Factories	2.49	1.39	—	2.47	4.02	—	—	4.02	2.58	1.39	—	2.56
(b) Small Factories	2.19	2.12	—	2.19	1.41	—	—	1.41	2.17	2.12	—	2.17
ALL FACTORIES	2.36	1.64	—	2.35	3.34	—	—	3.34	2.40	1.64	—	2.39

Among production workers employed directly by the managements, the average daily earnings of men and women were Rs. 2.36 and Rs. 1.64 respectively and of all workers were Rs. 2.35. The reason why the earnings of lowest-paid women were low as compared to lowest-paid men seems to be that women were found to be employed in very few establishments and wherever they were employed, they were invariably engaged on unskilled jobs (e.g., as *mazdoors* and *beldars*) whereas lowest-paid men in certain establishments were found to be working on better paid jobs. Only in one sampled factory, men and women were found to be working on the same job but wage rates of women were lower. The figures given in the above Statement show that the earnings of lowest-paid workers employed through contractors were higher as compared to those employed directly. This is largely due to difference in the lowest-paid occupations in which the two groups of workers were employed. Whereas, as mentioned above, lowest-paid workers employed directly were generally *mazdoors* or *beldars* (both of which were unskilled jobs), the lowest-paid workers employed through contractors were hammermen, fitters and turners, etc., who were skilled or semi-skilled workers. If both the groups, i.e., lowest-paid workers employed directly and through contractors, are considered together, the average daily earnings of the lowest-paid production workers were Rs. 2.39, the average for men being Rs. 2.40 and for women Rs. 1.64 only.

### 3.4. Earnings of Clerical and Watch and Ward Staff :

In the course of the Survey statistics concerning earnings, without break-up by components, of clerical employees and persons employed in watch and ward and other services were collected for one pay period immediately preceding 31st December, 1959. The results are given in the following Statement :—

#### STATEMENT 3.6

*Estimated Average Daily Earnings of Clerical and Watch and Ward Staff  
December, 1959.*

(In Rupees)

Size								Clerical and Related Workers	Watch and Ward and Other Services
(i)								(ii)	(iii)
(a) Large Factories	.	.	.	.	.	.	.	5.25	3.11
(b) Small Factories	.	.	.	.	.	.	.	3.71	2.75
ALL FACTORIES	.	.	.	.	.	.	.	4.99	3.06

Average daily earnings of Clerical and related employees in the country were nearly Rs. 5.00 and that of Watch and Ward and Other Services were Rs. 3.06. The above figures show that the rate of payment was higher in large factories as compared to small ones. The average daily earnings of clerical and related employees in the industry, as a whole, were invariably higher than the average daily earnings of all production workers. The average daily earnings of persons in the group of 'Watch and Ward and Other Services' were higher than those of the lowest-paid production workers but lower than those of all production workers.



### 3.5. Components of Earnings :

The following Statement shows the earnings of all workers by various components in the industry :—

#### STATEMENT 3.7

#### *Estimated Average Daily Earnings by Components of All Workers in Machine Tool Industry in December 1959*

(In Rupees)

Size	Basic Earnings (Basic Wage and Dearness Allowance)	Production or Incentive Bonus	Night Shift Allowance	House Rent Allowance	Transport Allowance	Overtime Pay	Other Allowances	Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	3.91 (87.3)	0.52 (11.6)	*	*	*	0.04 (0.9)	0.01 (0.2)	4.48 (100.0)
(b) Small Factories	3.49 (98.6)	0.03 (0.8)	—	—	—	0.02 (0.6)	—	3.54 (100.0)
ALL FACTORIES	3.81 (89.9)	0.39 (9.2)	*	*	*	0.04 (0.9)	*	4.24 (100.0)

\*The expenditure worked out to be less than Re. 0.005. per manday.

NOTE :— Figures in brackets are percentages to the col. (ix).

**3.5.1. Basic Earnings.**—The term “basic earnings” includes basic wage and dearness allowance wherever paid separately. This component alone formed nearly 90 per cent. of the total earnings. The reason why basic wage and dearness allowance have not been shown separately is that in nearly 88 per cent. of the factories no dearness allowance was being paid at all and workers were receiving only consolidated wages. Among the factories paying dearness allowance as a separate component, in 45 per cent. the rate of payment was linked with the consumer price index number, in 10 per cent, it was paid on a slab basis, *i.e.*, the rate varied according to income groups and in the rest (*i.e.*, 45 per cent.) the payment was at a flat rate to all workers. It was noticed that the system of linking dearness allowance with the consumer price index number existed only in the sampled factories located in Bombay, and in these units all workers were receiving dearness allowance. The factories where dearness allowance was being paid on the basis of slabs, the rate of payment was as follows :—

Slab	Dearness Allowance Rate
1. Workers drawing upto Rs. 1.75 per day or Rs. 44 per month.	Rs. 30 p.m.
2. Workers drawing Rs. 1.76 to Rs. 2.50 per day or Rs. 45 to Rs. 65 per month.	Rs. 34 p.m.
3. Workers drawing Rs. 2.51 to Rs. 3.25 per day or Rs. 66 to Rs. 85 per month.	Rs. 42 p.m.
4. Workers drawing Rs. 3.26 or above per day or Rs. 86 and over per month.	45% of the basic or Rs. 42 p.m. whichever was higher.

The system of paying dearness allowance at a flat rate existed only among 59 per cent. of large factories. Of these, nearly one-fourth were paying dearness allowance only to their monthly-rated employees. The amount paid ranged between Rs. 25 and Rs. 32 per month. In another one-fourth, workers were being paid 50 per cent. of their basic wage as dearness allowance. Of the remaining factories, half of them paid this allowance at the rate of Re. 0.28 per hour per worker and Rs. 25 per month to monthly-rated staff and the other half paid a uniform sum of Re. 0.75 per day to all employees.

**3.5.2. Production or Incentive Bonus.**—Next to basic earnings, the most important element of total earnings of workers in the industry was production or incentive bonus. This component constituted about 9 per cent. of the total earnings. Its share was much larger (11.6%) in the bigger establishments as compared to small factories (0.8%) showing that the practice of paying production/incentive bonus was more popular in large factories. Production or incentive bonus schemes were generally applicable only to production workers and were in force in 9.1 per cent. of large and 3.9 per cent. of small factories. In large factories generally certain norms were fixed and those completing the work within the specified period were paid bonus at stipulated rates. In small factories an *ad hoc* sum was separately allocated for distribution as bonus among workers each month and the share of concerned workers was decided by the senior technical officers of the factory on the basis of the performance of each worker.

**3.5.3. Night Shift Allowance.**—Only 9 per cent. of large factories were found to be paying this allowance to persons employed in night shifts. This accounts for the fact that such an allowance constituted a very insignificant proportion of the total earnings. Wherever the system existed, the rate of payment ranged between Re. 0.16 and Re. 0.25 per worker per shift. In some of the units if workers were supplied free tea or coffee, the amount paid was reduced to Re. 0.12 per shift per worker.

**3.5.4. House Rent Allowance.**—The reason why this allowance also constitutes a very insignificant proportion of the total earnings shown in Statement 3.7 is that a very small number of large factories alone were found to be paying it to Fitters and Supervisors. The rate of payment was Rs. 10 and Rs. 25 per month respectively. In the case of Fitters the benefit was available only to some of the old employees.

**3.5.5. Transport Allowance.**—The system of paying transport allowance existed in only 4.5 per cent. of the large factories and the beneficiaries were Clerks, Draughtsmen and Supervisors. All of them were receiving a uniform sum of Rs. 15 per month as transport allowance.

**3.5.6. Overtime Pay.**—Though not forming any significant proportion of the total earnings, overtime is the only component next to basic earnings and production or incentive bonus, which is reflected in the earnings of workers in the industry. It constituted 0.9 per cent. of the total earnings. Its share was nearly 0.9 per cent. in large factories as compared to 0.6 per cent. in small factories.

**3.5.7. Attendance Bonus.**—The scheme of “attendance bonus” was found to be in vogue only in 4.5 per cent. of the large factories. Consequently, this component is reflected in this group of factories alone and its share in the industry, as a whole, is negligible. In the factories where such a bonus was being paid the payment was made once in a year and the rate of payment ranged from Rs. 5 for those up to six absences in the year to Rs. 20 in the case of those whose absences did not exceed one.

**3.5.8. Other allowances.**—Only very few factories were found to be paying other allowances. For instance, in 4.5 per cent. of the large factories the managements were paying a tiffin allowance of Re. 0.37 per shift to those workers who worked beyond the normal hours of duty. In an equal proportion of large factories, there was a system of paying an extra sum of Re. 1 to Rs. 3 per week to some of the workers who completed six months of service to the satisfaction of the management.

### 3.6. Annual Bonuses :

**3.6.1. Profit Bonus.**—A regular scheme for paying profit bonus was found to be in existence in only one of the sampled units located in Mysore, representing 4.5 per cent. of the total number of factories in the large establishments. In this unit the scheme was in force since 1944 and was applicable to all the workers. The rate of payment was one-fourth of the total basic wage of the yearly earnings of the worker and mode of payment was cash. It is interesting to note that the profit bonus scheme was formulated entirely by the managements and workers had no hand in it.

**3.6.2. Year-end Bonus.**—The system of paying year-end bonus was found to be quite in vogue in the industry and it is estimated that nearly 22.6 per cent. of machine tool factories were paying such bonus at the time of the Survey. It was more in vogue in large establishments inasmuch as 41 per cent. of them were found to be having such a system. Of the factories which were paying this bonus, 11 per cent. had regular schemes framed exclusively by the managements and the rest were making payments on an *ad hoc* basis. In 37.5 per cent. of units where *ad hoc* payments were being made it was on the basis of discretion of the managements but in the remaining it was paid as a result of voluntary agreements.

The proportion of small factories paying year-end bonus was only 15.4 per cent. and in none of them there was any regular scheme. Of the units making payments, in half of them bonus was paid at the discretion of the employers, in 25 per cent. it was paid on the basis of voluntary agreements between employers and workers and in the rest as a result of adjudication awards.

The mode of payment was cash in all the factories. The year-end bonus schemes everywhere covered all workers without any exception. In those units where payment was on an *ad hoc* basis, the rate of payments differed from factory to factory and ranged from one-twelfth to one twenty-fourth of the total earnings of the workers during the concerned year. Wherever the scheme was on a regular basis, the payment rate was 12 days' consolidated wages in a year.

**3.6.3. Festival Bonus.**—The practice of paying festival bonus was prevalent only in 9.1 per cent. of the large establishments, all of which were located in West Bengal and in each payment was being made on the occasion of the ‘Puja Festival’. However, in none of them there were regular schemes. In 50

per cent. of the establishments the payment was at the discretion of the management and in the remaining 50 per cent. it was made on the basis of agreements reached between employers and workers. In half of the factories the rate of payment was 6 days' pay and in the remaining the amount paid ranged from Rs. 5 to 1½ months' basic wages.

### **3.7. Fines and Deductions :**

The managements of all the sampled establishments stated that no fines were being imposed on workers and consequently they did not maintain any separate register for that. Almost in all the factories the deductions, wherever made for the absences, defaults, damages or on other accounts (*e.g.*, Provident Fund, Employees' State Insurance Contributions) were in conformity with the provisions of the law. Only 18.2 per cent. of large factories and 15.4 per cent. of small factories were found to be maintaining separate registers for showing deductions as prescribed under the Payment of Wages Act. The rest were using pay registers for this purpose and were not maintaining any separate register.

## CHAPTER IV

### WORKING CONDITIONS

#### 4.1. Shifts :

The results of the Survey show that an overwhelming proportion (83%) of machine tool factories in the country worked only one shift a day and only a small proportion worked two or three shifts. The details are given in the following Statement :—

STATEMENT 4.1

*Estimated Percentage Distribution of Machine Tool Factories According to the Number of Shifts Worked, 1960-61.*

Size	Number of factories	Percentage of factories having			Percentage of factories having night shifts
		One shift	Two shifts	Three shifts	
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories	69	68.2	27.3	4.5	27.3
(b) Small Factories	175	88.5	11.5	—	3.8
ALL FACTORIES	244	82.7	16.0	1.3	10.5

It would be seen from the above figures that the system of working three shifts was more in vogue in large factories. Nearly 68 per cent. of them had one shift, 27 per cent. two shifts and 5 per cent. three shifts. Among small factories, 88 per cent. had one shift and the remaining had two shifts. Thus none of the small factories worked three shifts.

Only 10.5 per cent. of the factories in the country worked night shift. The proportion of factories working night shifts was higher in large establishments as compared to small ones.

#### 4.2. Hours of Work :

The Statement given below shows the proportion of factories according to the length of hours of work of majority of workers in the industry :—

STATEMENT 4.2

*Daily Hours of Work in Machine Tool Factories, 1960-61*

Size	Number of factories	Estimated percentage of factories where daily hours of work for majority of workers were			Estimated percentage of factories where night shift hours were			
		Less than 8	Equal to 8	More than 8	Less than 6	More than 6 but up to 7	More than 7 but up to 8	More than 8
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	69	—	90.9	9.1	50.0	15.0	35.0	—
(b) Small Factories	175	—	100.0	—	—	—	100.0	—
ALL FACTORIES	244	—	97.4	2.6	36.5	11.0	52.5	—

The daily hours of work for adult workers in nearly 97 per cent. of the factories in the country were generally restricted to 8 per day and it was only in a small percentage of the factories that the working hours were more than 8 per day. In small undertakings, the daily hours of work were invariably 8 per day. Some of the factories which had multiple shift system had prescribed even less than 8 hours a day for some of their employees who were engaged on difficult or arduous jobs like attending to the furnace, etc. Wherever contract labour was employed, it was found that their daily hours of work did not exceed 8.

Among the factories which worked night shift 36.5 per cent. had prescribed the night shift hours at 6, eleven per cent. more than 6 but up to 7 hours, and the remaining required their night shift workers to work more than 7 and up to 8 hours. The number of night shift hours were 7 or less only in large establishments. In all small factories night shift hours were between 7 to 8 per day. Of the large factories working night shift, one-third had a regular system of changeover of workers from one shift to another after every week and in the rest there was no regular system but workers were transferred from one shift to another at the discretion of the management. Only 3.8 per cent. of small factories worked night shift and all of them had a regular system of transferring workers from one shift to another once in a month. The system of providing certain amenities to night shift workers or making some cash payments as compensation for discomforts of night shift existed only in 41.7 per cent. of the factories in the country and all of them were large establishments. About 59 per cent. of the factories offered a free cup of coffee or tea to their night shift workers. Those who did not accept this offer were paid Re. 0.15 per night shift in lieu thereof. The following statement shows the distribution of factories according to the duration of spreadover and rest-intervals and also the percentage of factories where hours of work were not being observed : --

#### STATEMENT 4.3

*Estimated Distribution of Factories According to Spreadover, Rest-intervals, etc. 1960-61.*

Size	Number of factories	Percentage of factories where						Timings were not being observed
		Spreadover for adult workers was			Rest-interval for adult workers was			
		Less than 8 hours	8 to 9 hours	More than 9 hours	Less than ½ hour	½ to one hour	More than 1 hour	
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	69	—	95·4	4·6	—	90·9	9·1	18·2
(b) Small Factories	175	—	100·0	—	—	100·0	—	15·4
ALL FACTORIES	244	—	98·7	1·3	—	97·4	2·6	16·2

The Survey results show that all the machine tool factories in the country allowed an interval of at least half an hour for rest to their employees as required by law. About 97 per cent. of the factories allowed between half an hour to one hour and the rest even more than 1 hour. Wherever contract labour was employed, their period of rest-interval was

between half an hour to one hour. The actual daily spreadover in the units varied depending upon the hours of work and the duration of the rest-interval. In the country, as a whole, the spreadover in 98.7 per cent. of the factories was between 8 and 9 hours. Only in the case of 1.3 per cent. of the factories (all of them were large factories) the spreadover was noticed to exceed 9 hours. The Factories Act, 1948, limits the weekly hours to 48 in all establishments. All the units covered were found to be respecting this limit and had so arranged the daily hours of work that they did not exceed 48 hours in a week.

The compliance with the provisions of the law concerning observance of the timings of work was also found to be quite satisfactory. In the country, as a whole, only in 16.2 per cent. of the factories it was noticed that the normal timings were not strictly adhered to.

#### 4.3. Dust and Fumes :

The Survey results show that about 20 per cent. of the factories alone were engaged in manufacturing processes which gave off considerable dust. In the case of large establishments, the percentage of such factories was 22.7 and among small establishments it was only 19.2. The main processes which caused dust were grinding, sand mixing and moulding. About 40 per cent. of the factories, where dust nuisance was noticed, had made arrangements for dust suppression by water and in 50 per cent. dusty processes were isolated from other operations as a precaution. Only 20 per cent. of the establishments having dusty processes had provided some protective equipments to their employees. Of the establishments where processes causing dust were carried out, in 20 per cent. the work rooms involved in the process were found to be kept neat and clean, in 30 per cent. the house-keeping was average and in the rest it was unsatisfactory. In the case of some of these factories where no measures had been adopted to safeguard workers from the ill-effects of dust, it was reported that as a respiratory protection workers were taking *gur* with their meals. In some of them workers were found covering their mouths with cloth pieces, etc.

The processes which gave rise to fumes, vapours and gases, etc., were noticed in only 18.2 per cent. of the large establishments. Among the manufacturing processes responsible for fumes, vapours, etc., in the industry were mainly chroming and spray painting. Of the units where fumes, vapours, etc., were noticed, one-third had not only isolated the processes but had also installed local as well as general exhaust for arresting and clearing fumes, etc. It was reported that in none of the units any protective equipment had been provided to workers.

#### 4.4. Seats for Workers :

Under the Factories Act, 1948, it is obligatory on the part of the managements to make suitable arrangements for sitting for all such workers as are obliged to work in a standing position so that they may take advantage of any opportunity for rest which may occur in the course of work. Since many of the operations in the industry are being performed by workers while standing, the above provision of the law assumes greater significance. This aspect was enquired into during the course of the Survey and it was found that only 16.2 per cent. of the factories in the country had made seating arrangements. The percentage of such units was 18.2 among large factories and 15.4 among small ones. When asked about

the reasons for not complying with the provisions of the law, the employers generally contended that the work was of such a nature that it was not possible for workers to be away from the machines even for a minute without affecting production. A few argued that since seating arrangements had been made in places other than the work-rooms, they did not consider it necessary to make special arrangements at work places. Some of them expressed their helplessness in view of shortage of space.

#### **4.5. Conservancy :**

The Factories Act requires every employer to maintain an adequate number of latrines and urinals for use of workers, separately for men and women. It not only lays down the scale of conservancy arrangements but also provides that they should be adequately lighted, ventilated and maintained in a clean and sanitary condition at all times. The Statement on the next page gives details relating to conservancy arrangements found in the industry at the time of the Survey.



# STATEMENT 4.4

## Conservancy Arrangements in Machine Tool Industry—1960-61

Size	Number of factories	Estimated percentage of factories									
		Providing		Where latrines were of				Providing		Where latrines were properly screened	Employing women and having separate arrangements*
		Latrines	Urinals	Water borne Sewer	Septic Tanks	Dry Type		Bore Hole	Pan		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)
(a) Large Factories	69	95.4	80.8	24.3	24.2	..	42.4	9.1	51.5	100.0	66.7
(b) Small Factories	175	69.2	50.1	10.8	5.8	..	66.9	16.5	38.8	83.5	100.0
ALL FACTORIES	244	76.6	60.9	15.5	12.3	..	58.3	13.9	43.3	89.3	88.2

\*The percentages relate to factories providing latrines and urinals as also employing women.

In the country, as a whole, nearly 77 per cent of the machine tool factories had provided latrines. The main defaulters in this matter were small establishments. About one-fourth of the establishments had modern sanitary arrangements in the shape of water borne sewers or septic tanks and the rest had provided old type of latrines. About 88 per cent. of the factories employing women had made separate arrangements for them. The compliance with the provision of the law in regard to proper screening of latrines was also found to be good inasmuch as in about 89 per cent. of the establishments proper arrangements for privacy existed. The defaulters were mostly small factories. However, in regard to provision of taps near latrines, the compliance was not so good and only about 43 per cent. of the factories in the country had made such arrangements.

The proportion of factories providing urinals was nearly 61 per cent. in the industry. But in none of the factories employing women, separate arrangements had been made for them. Wherever latrines and urinals had been provided they were generally in conformity with the prescribed scale and except in the case of some small factories all were of permanent structure. The walls of the latrines and urinals provided in the industry were mostly plastered.

The percentage of factories where sanitary conditions were found to be unsatisfactory was nearly 40 in the country. In the remaining factories the condition was either good or tolerable. The proportion of factories with poor sanitary conditions was much higher in the case of small factories (44.4%) as compared to large factories (28.6%).

#### 4.6. Leave and Holidays with Pay :

The law in force in the country in respect of factory labour provides only for the grant of annual leave (*i.e.*, earned leave) with pay to their employees. However, either as a consequence of voluntary decisions of employers or as a result of agreements or adjudication awards, various other types of leave facilities have now come in vogue in various factories. The following Statement shows the percentage of factories granting various types of leave with pay :—

#### STATEMENT 4.5

*Estimated Percentage of Machine Tool Factories Granting various Types of Leave and Holidays with Pay 1960-61.*

Size	Number of factories	Percentage of factories granting			
		Earned leave ( <i>i.e.</i> , Annual leave)	Casual leave	Sick leave	National and Festival holidays
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories .	69	95.4	36.4	9.1	90.9
(b) Small Factories .	175	65.4	30.8	3.8	84.6
ALL FACTORIES .	244	73.9	32.4	5.3	86.4

**4.6.1. Earned Leave.**—In the country, as a whole, nearly 74 per cent. of factories were granting earned leave. It is evident from the figures given above that compliance with the law was better in large factories and among small factories nearly 35 per cent. were not granting earned leave at all. In about 16 per cent. of the factories it was noticed that workers were actually not granted leave but were paid wages for the leave days due to them. In regard to period of leave, qualifying conditions and rate of payment, the managements generally followed the provisions of the Factories Act.

With a view to obtaining a picture of the extent of benefit actually enjoyed by workers, statistics were also collected about the number of workers who availed of leave during 1959. The following Statement shows the estimated average daily number of workers employed in machine tool factories, the number of workers who enjoyed leave and their distribution according to the number of days availed :—

STATEMENT 4.6

*Estimated Number of Workers Granted Earned Leave with Pay During 1959.*

size	Estimated average daily number of workers employed in 1959	Estimated number of workers who enjoyed leave in 1959	Percentage of workers who enjoyed leave to the total employed	Estimated percentage distribution of workers who enjoyed leave by period of leave taken						
				Up to 5 days	6 to 10 days	11 to 15 days	16 to 20 days	21 to 25 days	26 to 30 days	Over 30 days
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
(a) Large Factories	7,180	6,095	84.9	12.4	19.2	44.8	13.3	5.3	3.0	2.0
(b) Small Factories	2,198	973	44.3	24.6	25.4	33.8	8.5	6.3	0.7	0.7
ALL FACTORIES.	9,378	7,068	75.4	14.1	20.0	43.3	12.6	5.5	2.7	1.8

The above figures show that nearly 75 per cent of the workers in the industry availed of earned leave with pay during 1959. The proportion of workers who enjoyed leave was higher (85%) in large factories as compared to small factories (*i.e.*, 44%). Of the workers, who availed of leave, the largest proportion was of those who took 11 to 15 days' leave (43%), persons taking 6 to 10 days' leave were next in order (20%) and those availing up to 5 days were next in the line (14%).

**4.6.2. Casual Leave.**—Besides paid annual leave, nearly 32.4 per cent. of the factories had also a system of granting casual leave with pay. Only in 61.9 per cent. of the factories granting such leave the benefit was available to all employees, in others it was enjoyed by only some categories of

employees, e.g., office staff and watch and ward personnel. The qualifying period of service prescribed varied considerably from unit to unit and ranged from 2 to 12 months. Similarly, the number of days allowed in a year also varied from 5 to 15. In some of the establishments there was no prescribed limit and the number of days allowed depended entirely on the discretion of the management. Those allowed leave were paid their normal pay for the leave period.

**4.6.3. Sick Leave.**—Wherever the Employees' State Insurance Scheme was in force, workers were entitled to leave with cash benefits for period of sickness. However, in those areas where the scheme was not in force the benefit of such leave was entirely at the discretion of the managements. In the course of Survey, it was found that a few factories in the non-implemented areas had a system of granting sick leave with normal pay to all their employees. The number of days allowed was up to 10 in a year. In a few of these units no qualifying conditions were attached to the grant of such leave, but in some the qualifying period of service prescribed was one year.

**4.6.4. National and Festival Holidays.**—The practice of giving certain public holidays with pay existed in about 86 per cent. of the factories in the industry. The number of paid holidays allowed in a year, however, varied widely and ranged from 2 to 20 days.

The Statement below gives the percentage distribution of factories according to the number of days allowed in a year as paid holidays:—

#### STATEMENT 4.7

##### *National and Festival Holidays with Pay Allowed in Machine Tool Factories—1960-61.*

Size	Number of factories	Estimated percentage of factories granting National and Festival holidays	Estimated percentage of factories where the number of days allowed in a year was			
			Up to 5 days	6 to 10 days	11 to 15 days	16 and over
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
(a) Large Factories .	69	90.9	55.0	25.0	15.0	5.0
(b) Small Factories .	175	84.6	41.2	50.0	8.8	..
ALL FACTORIES .	244	86.4	45.3	42.6	10.6	1.5

Generally, no conditions were attached for the grant of such paid holidays but in some of the establishments workers could get pay for holidays if they attended work on the preceding or the following day.

**4.6.5. Weekly Off.**—The Survey reveals that all the factories throughout the country were complying with the provisions of the law in regard to the grant of weekly off to their employees. Since the law does **not** provide for payment for such off days it was found that except in the case of monthly-rated workers none of the employees were being paid for the off days.

## CHAPTER V

### WELFARE AND AMENITIES

Welfare activities undertaken by employers and the amenities provided to workers fall under two categories: (a) Obligatory, *i.e.*, those prescribed under law, and (b) Non-obligatory or voluntary; *i.e.*, those which are not statutory but are being provided by employers of their own accord. During the course of the present Survey, information was collected on obligatory as well as voluntary welfare measures adopted by the managements and the position found to be existing in the Machine Tool Industry is described in the following paragraphs :—

#### (a) OBLIGATORY :

##### 5.1. Drinking Water Facilities :

Except for about 4 per cent. of the factories, all others were found to have provided this basic amenity. The type of facility provided, however, varied considerably ranging from such simple arrangements as earthen pitchers or buckets to mechanical coolers. The following Statement shows the distribution of factories according to the type of arrangements made :—

#### STATEMENT 5.1

##### *Drinking Water Facility in Machine Tool Factories—1960-61.*

Size	Number of factories	Estimated percentage of units where this facility existed	Estimated percentage of factories where water supply arrangements were					Estimated percentage of factories having cool water arrangements in summer months
			Refrigerated water	Earthen pitchers only	Earthen pitchers, buckets or drums	Tube-wells or wells	Only taps	
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	69	95.4	9.5	28.6	14.3	38.1	9.5	80.3
(b) Small Factories	175	96.2	—	16.0	16.0	56.0	12.0	60.1
ALL FACTORIES	244	96.0	2.7	19.5	15.5	51.0	11.3	67.1

The predominant arrangement for the supply of water was wells or tube wells (51%). The next most common arrangement (35%) was earthen pitchers and buckets, etc. Only 9.5 per cent. of the large factories had installed mechanical coolers and they constituted a negligible proportion of all machine tool factories in the country.

According to the rules framed by the State Governments under the Factories Act, every factory employing more than 250 workers should supply drinking water cooled by ice or other effective method during certain specified period of the year. The Survey results show that almost all the factories under such an obligation had complied with it. Some of them had installed coolers while others arranged for earthen pitchers to supply cool water during summer months.

## **5.2. Washing and Bathing Facilities :**

Compared to such factories as textiles, the manufacturing processes in the Machine Tool Industry are not as clean. They do involve more contact with sand, grease, etc., and consequently washing arrangement is a positive amenity for workers. The Survey results show that in nearly 60 per cent. of the factories in the industry some or other arrangements existed for washing purposes. In a majority of the cases (51.5%) they were in the form of hand pumps, tube-wells or tanks and in 26.5 per cent. of the factories taps on stand pipes were provided for the purpose. Only in about 11 per cent. of the units wash basins fitted with taps had been provided. In the remaining establishments, either some water was kept stored in receptacles (9%) or simple taps were provided (2%) for workers' use. Of the units having washing arrangements, only 45.6 per cent. supplied some cleaning material also. Nearly half of the concerned units supplied soap but others provided only waste cotton and some sort of oil for the purpose.

Nearly 16 per cent. of the factories in the industry had provided bathing facility for their workers. Among large establishments, nearly 18 per cent. had provided such facilities and the bath rooms were found to be clean. However, of the small establishments 15 per cent. had bathrooms and in nearly half of them the facilities provided were found to be unsatisfactory. Of the factories providing bathing facilities (in both the groups), nearly one-fourth employed women also. None of these had made any separate arrangement for them. Locker facilities were found to be existing in only 4 per cent. of the large factories and it formed a negligible proportion of all factories in the country.

## **5.3. Canteens :**

Under the Factories Act, only those establishments which employ more than 250 workers and are specifically ordered to do so are required to maintain a canteen for the use of the workers. Information collected during the Survey shows that all such factories had complied with the requirement. In fact some of those establishments which employed less than 250 workers had also maintained canteens. It is estimated that the percentage of large factories employing more than 250 workers was only 13.6 and, as mentioned above, all had canteens. Besides them, another 4.5 per cent. had also provided canteens raising the proportion of large factories having canteens to about 18 per cent. Of the small establishments, none had made any such arrangement. Therefore, the proportion of machine tool factories in the country having canteens is thus estimated to be only 5 per cent.

Of the canteens functioning in the units, 50 per cent. were being run by contractors, 25 per cent. directly by the managements and the rest by

workers' co-operatives. Only one-fourth of the canteens served meals also and the rest sold tea, coffee and snacks alone. The law requires that the items should be sold on a "no profit, no loss" basis but the usual practice was to charge market rate for the items sold. It was only in the case of 25 per cent. of the canteens that the items were sold at subsidised rates.

In only one-fourth of the factories having Canteens Managing Committees had been appointed as required by law. All these canteens were being run by the managements themselves. The prices of the items sold in these canteens were fixed by the Managing Committees. Elsewhere, the prices were fixed by those who were running the canteens, such as contractors or workers' co-operatives. In none of the canteens the price list of the items sold was found to have been displayed. Only half of the number of canteens were found to be located in a congenial surroundings but from the point of view of hygienic conditions, nearly 25 per cent. were very unsatisfactory. All canteens had proper drinking water facilities. Judging from the average daily attendance of employees in canteens it would appear that they were quite popular.

#### **5.4. Rest Shelters :**

Rest shelters for taking meals or for use during intervals or waiting periods etc., are required by law to be provided by only those managements who employ more than one hundred and fifty workers and who do not maintain a canteen of the prescribed standard. It is estimated that nearly 18 per cent. of the large factories alone employed more than 150 workers and thus were under an obligation to maintain rest shelters of the prescribed requirement. Of these, quite a good number of factories (*i.e.*, 69%) had provided canteens of the prescribed standard and hence they were not legally bound to maintain rest shelters. The remaining factories had neither built any rest shelter nor maintained any canteen. However, certain factories of small size which were not even under a statutory obligation to provide a rest shelter had also done so. They constituted about 3 per cent. of the total factories in the country.

#### **5.5. Creches :**

As mentioned earlier, only a few factories employed women and that too in small numbers. Consequently, none of them were required under law to maintain creche and none was found to have done so either.

#### **5.6. First-aid Boxes :**

Under the Factories Act, the employers are required to maintain first-aid boxes at a prescribed scale and containing the prescribed contents. The Survey results show that with the exception of nearly 10 per cent. of the factories in the industry all others maintained first-aid boxes. However, in regard to contents only about 35 per cent. of those having such boxes were found to be keeping the prescribed items. Generally the compliance in regard to the contents of boxes was better in large establishments (41%) as compared to small ones (*i.e.*, 31%).

The law requires that such boxes should be kept under the charge of trained first-aiders. But such an arrangement existed in only 43 per cent. of large factories and 32 per cent. of small factories. Thus the overall percentage of factories where first-aid boxes were kept under the charge of



trained first-aiders was 37. Most of the first-aiders were holding diploma from the St. John's Ambulance.

### **5.7. Ambulance Rooms :**

The Factories Act, 1948, imposes responsibility on the employers to maintain ambulance rooms if they employ more than 500 workers. In the course of the Survey, only one establishment employing more than 500 workers was surveyed and it was found that the unit was complying with the provisions of the law in regard to ambulance rooms.

### **5.8. Medical Facilities :**

Except for first-aid boxes and ambulance rooms, the law does not require employers to provide any other medical facility. However, it was found that nearly 9 per cent. of large factories also maintained dispensaries with full-time or part-time doctors. In addition to doctors, these dispensaries had other ancillary staff and in one of them the services of a Dental Surgeon were also available. Hospital was being maintained by only one large establishment.

### **(b) NON-OBLIGATORY :**

### **5.9. Recreational Facilities, etc. :**

Facilities for in-door and out-door games were found to have been provided in 20 per cent. of the large factories alone. In these units, besides in-door games like chess, carrom and cards, facilities also existed for certain out-door games such as football, volley ball, badminton and cricket. These facilities were generally available to all workers in half the number of concerned units and in the rest they were available to only those who paid some subscription. One out of every five large factories and one out of every six small factories were found to be occasionally arranging film shows or organising dramas for the recreation of their employees. A fair proportion of small factories (*i.e.*, 33%) generally supplied only certain newspapers and magazines to their employees. Irrespective of the fact whether there was any regular arrangement for the recreation of workers or not, quite a large number of managements organised some annual functions usually on some festival or religious occasion. The percentage of such establishments was 80 in the case of large and 50 in the case of small factories.

In roughly 88.6 per cent. of the factories making the above-mentioned arrangements the cost of the activities was being met entirely by the employers, in 5.7 per cent. of cases jointly by managements and workers and in an equal number entirely by workers. In all the concerned small factories, the cost was being met entirely by the managements. The percentage of large factories where the cost was being met entirely by the managements, jointly by employers and workers or entirely by workers was about 60, 20 and 20 respectively.

### **5.10. Educational Facilities :**

Not much interest seems to have been evinced by the employers for the education of workers or their children. Of all the units surveyed,

arrangements for the education of workers' children were found to have been made in only one large factory in the country. At the time of the Survey, only a primary school was being run where 182 students were receiving free education. The management planned to open a high school and the building was under construction. No arrangements, whatsoever, existed anywhere for adult education.

## Other Facilities:

### 5.11. Co-operative Societies :

Co-operative societies were found to be existing in two of the large factories covered in the course of the Survey, representing 9 per cent. of the large factories and 2.6 per cent. of all machine tool factories in the country. Both of them had credit societies and in one of them there was also a co-operative store. The object of the credit societies was to encourage thrift and prevent indebtedness. Any employee could become a member of the society by purchasing a share which was of Rs. 5 or Rs. 10. Each member was required to pay a regular monthly subscription the amount of which varied according to pay. Each member could obtain a loan to the extent of 6 times basic pay or ten times the value of his paid up shares, or 6 months' pay or Rs. 1,000 whichever was less. These loans had to be repaid in easy monthly instalments. The co-operative store sold not only items of day-to-day requirement but also certain other articles like bicycles, sewing machines and electric fans.

### 5.12. Housing :

At the time of the Survey, nearly 20 per cent. of the factories were found to have provided housing accommodation to their workers in the country. The following Statement shows the details regarding accommodation, rent charged, etc :—

#### STATEMENT 5.2

#### *Estimated Proportion of Machine Tool Factories Providing Housing Accommodation to their Employees, 1960-61.*

Size	Number of factories	Percentage of factories providing houses	Estimated number of houses provided	Percentage of houses			Percentage of factories which charged		
				One room	Two rooms	More than two rooms	Rent from all	No rent from all	Rent from only some employees
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(a) Large Factories	69	31.8	248	58.2	40.5	1.3	13.6	72.7	13.7
(b) Small Factories	175	15.4	40	83.3	16.7	..	..	100.0	..
ALL FACTORIES	244	20.0	288	61.7	37.2	1.1	6.1	87.8	6.1

The percentage of factories providing housing facilities was 31.8 in the case of large factories and 15.4 among small ones. The majority of the factories had provided only one-room tenements. Usually production workers and watch and ward staff were allotted one-room tenements and two-room accommodation was being provided only to clerical and supervisory staff. Better accommodation was given to higher staff like Managers. The proportion of workers housed was, however, very small, being roughly 2 per cent. in the industry, as a whole, indicating that the facility was available only to a restricted number of employees. The Statement below gives the other related details in regard to housing facility.

### STATEMENT 5.3

#### *Estimated Percentage of Factories Providing Housing Accommodation in Machine Tool Industry, 1960-61.*

Size	Estimated number of workers on 31st December, 1959*	Percentage of workers allotted housing accommodation	Percentage of factories providing houses	Percentage of factories where houses were allotted to			
				Only some Production workers	Only Watch and Ward Staff	Only Supervisory and Technical Staff	Only some employees of some categories
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
(a) Large Factories	8,576	2.6	31.8	42.9	42.8	14.3	..
(b) Small Factories	3,178	1.3	15.4	33.3	..	33.3	33.4
ALL FACTORIES	11,754	2.3	20.0	37.6	19.2	24.8	18.4

\*Workers deemed to be covered under the Factories Act.

None of the small factories charged any rent from their employees and among large factories, nearly 73 per cent. of those providing housing accommodation did not charge any rent either. Of the large factories charging rent, half had provided accommodation only to their officers. In these units some percentage of the cost of construction of the residential accommodation was being charged as rent. In other units, houses had been provided to Production, Watch and Ward, Technical and Supervisory Staff but a sum of Rs. 2.50 per month was being charged from the production workers alone and the rest were provided with free accommodation.

## CHAPTER VI

### SOCIAL SECURITY

Till the attainment of Independence, industrial workers in the country enjoyed only a limited amount of social security. It was mainly in the shape of Workmen's Compensation Act, passed by the Central Government, and the Maternity Benefit Acts put into force by the State Governments. However, since Independence there has been considerable enlargement of the scope and content of social security measures largely as a result of adoption of such statutory measures as the Employees' State Insurance Act and the Employees' Provident Funds Act and, to a certain extent, as a result of adjudication awards. The following paragraphs describe briefly the position of workers in machine tool factories in regard to social security at the time of the Survey.

#### 6.1. Provident Funds :

The information collected in the course of the Survey shows that in none of the sampled machine tool factories there was any provident fund scheme prior to the enforcement of the Employees' Provident Fund Act, 1952. The Scheme framed under this Act was put into force with effect from 1st November, 1952, initially in six industries, Machine Tool Industry being one of them. At the inception, the Scheme applied only to those factories which employed 50 or more workers and had completed three years of their existence. The employment limit was reduced to 20 with effect from 31st December, 1960. However, since the major period of the Survey fell in the calendar year 1960 and probably because a fairly high proportion of machine tool factories were small establishments, the statistics show that only 15.6 per cent. of the factories in the country had such schemes. As is quite natural to expect, the proportion of factories having provident funds was higher in large establishments (45%) than in small ones. In addition to the scheme framed under the Act mentioned above, no factory had any other scheme.

Since in all the concerned factories the funds had been constituted under the Employees' Provident Fund Scheme, the qualifying conditions, rate of contributions, etc., were uniform in all the establishments and were the same as prescribed. In these establishments all those employees who received less than Rs. 500 per month and had completed a continuous service of one year were entitled to become members. The rate of contribution of employees was  $6\frac{1}{4}$  per cent. of their basic wage and dearness allowance including the cash value of food concessions, if any, and an equal sum was being contributed by the employers. The following Statement shows the pro-

portion of workers who were members of provident funds on 31st December, 1959 :—

### STATEMENT 6.1

*Estimated Proportion of Workers who were members of Provident Fund Schemes on 31st December, 1959*

Size	Estimated number of workers employed*	Proportion of workers who were covered under Employees' Provident Fund Scheme
(i)	(ii)	(iii)
(a) Large Factories . . . . .	8,576	6,493 (73.2)
(b) Small Factories . . . . .	3,178	130 (3.9)
ALL FACTORIES . . . . .	11,754	6,623 (54.5)

It will be seen that despite the fact that the Scheme was in force in only 15.6 per cent. of the factories, the proportion of workers who were members of provident funds was fairly high *i.e.*, 54 per cent. The bulk of them were employed in large establishments.

### 6.2. Pension Schemes :

The Survey results show that in none of the units covered, there was any pension scheme for employees.

### 6.3. Gratuity :

The system of paying gratuity to workers in Machine Tool Industry was not very common. It is estimated that in the entire country gratuity was being paid only in 6.6 per cent. of the factories. The percentage of factories paying gratuity was 13.6 in the case of large factories and 3.8 among small factories. Wherever gratuity was being paid it covered 'all workers' of the establishment irrespective of the nature of the job or salary. Only in 62.5 per cent. of the factories paying gratuity there were regular schemes. In the rest payment was being made entirely at the discretion of the managements. Usually gratuity was being paid to workers on retirement, death or resignation. The conditions prescribed for payment in cases of retirement or resignation was at least 15 years' continuous service. Wherever there were regular schemes, the rate of payment was half a month's wages for each completed year of service. In some of the establishments the maximum amount payable was 15 months' salary. In the units having no regular scheme the amount paid was entirely at the discretion of the management. In some cases it was found that usually payment was made at the rate of 7½ days' basic wage. The following Statement shows the distribution of machine tool factories according to the type of scheme in force.

\*Relate to those covered under the Factories Act [Figures shown in brackets are percentages to col. (ii)].

## STATEMENT 6.2

*Estimated Proportion of Machine Tool Factories having Gratuity Schemes in 1960-61.*

Size	Number of factories	Having gratuity schemes	Percentage of factories			
			Where gratuity was being paid in the case of			
			Death	Retirement	Resignation	Termination of services
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
(a) Large Factories .	69	13.6	66.7	100.0	33.3	—
(b) Small Factories .	175	3.8	100.0	100.0	100.0	—
ALL FACTORIES .	244	6.6	81.2	100.0	62.5	—

Statistics collected regarding the actual number of workers who received gratuity show that not many workers who received the benefit during 1960-61.

#### 6.4. Maternity Benefits :

At the time of the Survey, with the exception of Jammu and Kashmir, women employed in the factories (including Machine Tools) in all the States were entitled to receive maternity benefits under the law. In the areas or places where the Employees' State Insurance Scheme had been put into operation, the benefit was payable by the Employees' State Insurance Corporation but elsewhere employers were liable to pay it under the State Maternity Benefit Acts. Data were collected in the course of the Survey on the number of factories employing women, number of cases in which maternity benefit was paid, etc., and the results are presented in the following Statement.

## STATEMENT 6.3

*Estimated Proportion of Factories which paid and the number of women who received Maternity Benefits in 1959.*

Size	Number of factories	Percentage of Factories employing women		Estimated number of women employed*	Percentage of women paid maternity benefits
		Total	Which paid maternity benefits		
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories .	69	13.6	33.3	55	5.4
(b) Small Factories .	175	3.8	—	7	—
ALL FACTORIES .	244	6.6	18.8	62	4.8

\*Relates to women covered under the Factories Act.

The statistics presented above include those payments alone which were made directly to women workers by the managements and do not include cases in which maternity benefits were paid by the Employees' State Insurance Corporation in the areas where the Scheme was in operation. Subject to the limitations, the statistics show that in the country, as a whole, nearly 5 per cent. of women employed in the industry received the benefits during the year 1959. All such payments were made only in the case of large factories.

### 6.5. Industrial Accidents :

Prior to the enactment of the Employees' State Insurance Act, the only law which provided for payment of compensation in cases of industrial accidents was the Workmen's Compensation Act. The Employees' State Insurance Act not only provides for payment of cash benefit to workers in cases of accidents, but also ensures medical care. Among other contingencies covered by it are maternity and sickness. The Scheme framed under this Act, however, is being extended gradually to various industrial centres. Consequently, in those areas where the scheme has not been put into force workers are receiving benefit only under the Workmen's Compensation Act. From the statistics collected in the course of the Survey it is estimated that during 1959 accidents occurred in 28.5 per cent. of machine tool factories in the country. The percentage was high (*i.e.*, 50) in the case of large factories and (20) in small establishments. The following Statement shows the distribution of persons involved in accidents by the nature of accidents.

#### STATEMENT 6.4

#### *Estimated Distribution of Persons involved in Accidents During 1959*

Size	Estimated number of persons involved in accidents	Percentage distribution of persons involved in accidents resulting in		
		Death	Permanent disability	Temporary disability
(i)	(ii)	(iii)	(iv)	(v)
(a) Large Factories . . .	303	1.0	1.0	98.0
(b) Small Factories . . .	41	—	—	100.0
ALL FACTORIES . . .	344	0.9	0.9	98.2

It would be seen that the percentage of persons involved in accidents resulting in permanent disability and death was quite negligible. None of the factories reported any case of occupational disease.

In the Machine Tool Industry, as a whole, it is estimated that the number of accidents per thousand workers was 29.3. Of these, temporary disability alone accounted for 28.7 and the remaining suffered permanent disability or death. The rate of death and permanent disability was equal in

proportion. The Statement given below indicates the distribution of persons by accidents :—

## STATEMENT 6.5

*Industrial Accidents in Machine Tool Factories During 1959*

Size	Estimated number of Workers			Estimated distribution of workers involved in accidents resulting in	
	Employed in the industry*	Involved in accidents	Death	Permanent disability	temporary disability
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories	8,576	303 (35.3)	3 (0.3)	3 (0.3)	297 (34.7)
(b) Small Factories	3,178	41 (12.9)	—	—	41 (12.9)
ALL FACTORIES	11,754	344 (29.3)	3 (0.3)	3 (0.3)	338 (28.7)

Note:—Figures in brackets are rates per thousand.

\*Relate to those covered under the Factories Act.

Among large factories, the rate of accidents reported in 1959 was higher as compared to small ones. It may be due to installation of heavier and more complicated machines and also better reporting.



## CHAPTER VII

### INDUSTRIAL RELATION

Separate statistics relating to number and nature of industrial disputes in the Machine Tool Industry are not available and hence it is not possible to comment on the state of industrial relations in the industry. However, in the course of the Survey information was collected on the extent of development of trade unionism and the arrangements existing in the establishments for promoting close contacts and cordial relations between labour and managements. The findings are discussed below.

#### 7.1. Trade Unionism :

The information collected shows that there has been a fair growth of trade unionism in the industry inasmuch as unions were found to be existing in 32 per cent. of the factories. From the point of view of proportion of workers who were members of unions, the position was still better. In the industry, as a whole, about 43 per cent. of the workers were members of unions. The details regarding the extent of unionism in large and small factories are given in Statement 7.1. It will be noticed that trade unionism had developed more in large factories. About 45 per cent. of them had unions and 54 per cent. of their employees were members of unions. The percentage of small factories and workers who were trade union members was 27 and 15 respectively.

#### STATEMENT 7.1

##### *Extent of Trade Unionism in Machine Tool Industry in 1960-61*

Size	Number of factories	Estimated percentage of factories where workers were members of trade unions	Estimated number of workers in the industry as on 31-12-59*	Estimated number of workers who were members of trade unions	Percentage of factories where unions existed and were recognised
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories	69	45.4	8,576	4,638 (54.1)	90.0
(b) Small Factories	175	26.9	3,178	466 (14.7)	28.5
ALL FACTORIES	244	32.2	11,754	5,104 (43.4)	52.6

\*Figures relate to workers covered under the Factories Act.

Note.—Figures in brackets are percentages to col. iv.

Of the factories where unions existed, the managements of only 52.6 per cent. had granted recognition. The percentage of such establishments was fairly high (90%) in the case of large factories but among small ones the percentage was fairly low (*i.e.*, 28.5). The main reasons generally given by the managements for not according recognition were as follows:—

- (a) The union functioning in the unit was not representative of workers as majority of them were not its members.
- (b) Trade union officials caused trouble and hampered the smooth working of the factory.
- (c) Workers had not approached them for according recognition.
- (d) The union had been formed only recently and the matter of according recognition was under consideration.

The following Statement gives the estimated percentage distribution of unions according to the main activities undertaken by them.

#### STATEMENT 7.2

*Estimated Percentage Distribution of Unions According to Main Activities Undertaken 1960-61.*

Size	Recreational facilities	Welfare	Adult education	Securing claims under Labour Acts	Relief to distressed members
(i)	(ii)	(iii)	(iv)	(v)	(vi)
(a) Large Factories .	30.6	38.2	23.0	84.1	53.6
(b) Small Factories .	—	—	—	100.0	28.5
ALL FACTORIES .	14.1	17.6	10.6	92.7	40.1

It would be evident from the above Statement that all the unions functioning in small factories were mainly engaged in securing claims under various Labour Acts. Only a few of them (*i.e.*, 28.5%) rendered financial assistance to their members in the event of strikes or lock-outs. Unions functioning in large factories, however, had a wider range of activities. Besides securing claims under various Labour Acts, about 22 per cent. were running libraries, 15 per cent. reading rooms, 15 per cent. primary schools for education of children, 15 per cent. of providing educational facilities for women and children, 32 per cent. in-door and out-door games and 22 per cent. organising film shows and dramas. Some of them (7%) were also arranging lectures for education of workers. A few of them were also giving relief to distressed members.

#### 7.2. Collective Agreements

During the course of the Survey, information was collected regarding agreements affecting terms and conditions of service concluded between employers and workers since 1956 and the results are given in the Statement which appears on the next page.

# STATEMENT 7.3

## Estimated Percentage of Factories in which Collective Agreements were Concluded Since 1956

Size	Number of factories	Percentage of factories where agreements were concluded	Percentage of agreements in which issues related to							
			Wages and Dearness Allowance	Bonus	Other allowances	Gratuity	Retrenchment	Confirmation	Leave and holidays with pay	Other matters
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
(a) Large Factories	69	36.2	34.8	25.4	—	—	—	—	19.9	19.9
(b) Small Factories	175	4.0	100.0	—	—	—	—	—	—	—
ALL FACTORIES	244	13.1	41.3	22.9	—	—	—	—	17.9	17.9

In the industry, as a whole, the percentage of factories where agreements were concluded during the period 1956 to 1960 was only 13. The proportion of establishments where agreements were concluded was higher in the case of large machine tool factories (36%) as compared to small ones (4%). As is evident from the above Statement, wages and dearness allowance featured in 41 per cent. of the agreements, bonus in 23 per cent. and leave and holidays in 18 per cent.

### 7.3. Standing Orders :

Under the Industrial Employment (Standing Orders) Act, 1946 framing of standing orders is obligatory for only those establishments which employ 100 or more workers but power is conferred on State Governments to extend the provisions to establishments employing lesser workers. The Survey results show that in the country, as a whole, 22.7 per cent. of large factories were under a statutory obligation to frame standing orders. Of them only 40 per cent. had complied with the provisions of the law. Of the remaining factories, though one-third had not framed any standing orders they were following the model rules framed by the Madhya Pradesh Government. Wherever standing orders had been framed they were duly certified by the competent authority and everywhere they related only to production workers. The following Statement gives the details regarding standing orders in the Machine Tool Industry :—

#### STATEMENT 7.4.

##### *Standing Orders in Machine Tool Factories During 1960-61*

Size	Number of factories	Factories having Standing Orders		Percentage of factories where Standing Orders were framed for			Estimated percentage of employees covered by Standing Orders
		Number of factories	Estimated percentage	Production workers	Clerical staff	Watch and Ward Staff	
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
(a) Large Factories	69	6	9.1	100.0	—	—	54.7
(b) Small Factories	175	—	—	—	—	—	—
ALL FACTORIES	244	6	2.6	100.0	—	—	39.9

### 7.4. Labour and Welfare Officers :

With a view to enabling employees to have better arrangements for personnel management and to help them in ensuring proper implementation of the labour laws, a specific provision has been made in the Factories Act requiring all factories employing 500 or more workers to appoint a welfare officer. The rules framed by the State Governments under the Act prescribe the functions and duties of these officers which are generally as follows (a) to promote harmonious relations between workers and the management and to act as a liaison officer between them, (b) to attend to the grievances

of workers and secure their redress, (c) to advise management with a view to ensuring compliance with the provisions of the Acts relating to health, safety and welfare of workers, (d) to assist information of Works Committees or committee relating to production, safety or welfare and (e) to organise and supervise welfare activities.

Since the number of machine tool factories which employ 500 or more workers was small, not many were under a statutory obligation to employ welfare officers. It is estimated that in the country, as a whole the percentage of such factories was negligible and all of them had appointed full-time welfare officers. In addition to these, some of those which were not under an obligation to do so had also appointed such officers. Thus the percentage of factories having such officers which were not legally bound was 3.8. All those which employed welfare officers were large establishments, *i.e.*, none of the small factories had employed such officers. Of the large factories only 4.5 per cent. were under a statutory obligation to appoint welfare officers but actually 13.6 per cent. had appointed them.

Welfare officers usually stated that their functions were the same as prescribed in the rules framed by the State Governments under the Factories Act. However, in view of the lack of welfare programmes it was noticed that generally their main duties were to attend to the grievances of workers, recruitment and maintenance of general discipline. They also represented employers in conciliation proceedings. In one of the factories the welfare officer was also in-charge of the time office.

#### **7.5. Works and Joint Committees :**

Under the Industrial Disputes Act, 1947, constitution of works committees is obligatory for those industrial establishments which employ 100 or more workers. Some of the State laws which were in force at the time of the Survey also provided for the constitution of joint committees in certain types of establishments. The main idea behind encouraging formation of such committees is to provide a forum for mutual discussion of matters concerning day-to-day relationship between employers and employees so that sources of friction could be eliminated in their initial stages and thus amity and good relationship between the two parties could be ensured. The Survey results show that 13.6 per cent. of the factories (or 40 per cent. of those which were under a legal obligation) had constituted such committees. All the units concerned were large establishments. Only in 66.7 per cent. of these establishments the Committees consisted of an equal number of representatives of the two parties. In the rest the representatives of employers were a few in number. It is reported that in 33.3 per cent. of the units having works committees no elections of workers' representatives were held. Not all the concerned factories had maintained any records of the meetings held or items discussed. In one-third of the factories having such committees the meetings were held twice a year. In the rest some meetings were held as and when required. There were a few which did not meet at all during the entire calendar year 1959. Since, as mentioned earlier, not many factories maintained records of proceedings it was not possible to make a study of the items discussed, decisions taken and the extent of their implementation. From stray records which were available or from the information given by the managements it seems that the items discussed generally related to such matters as issue of attendance cards, grant of increments to some categories of employees, payment of advances in cases of need, production bonus and annual bonus,

etc. The managements maintained that the decisions taken were partially implemented.

#### **7.6. Other Committees :**

None of the factories in the industry had formed production, welfare or safety committees. In some of the factories, though no Works or Joint Committees were functioning, some such committees as Negotiation Committee, Promotion Committee and Recruitment Committee had been constituted. The main function of the Negotiation Committee which was represented by workers and management was to ensure peace in the factory and devise means to increase production. The duties of the Promotion Committee which was found existing along with Recruitment Committee, were to consider persons for appointment as also for promotions.

#### **7.7. Grievance Procedure :**

Information collected shows that none of the small factories had any prescribed system of settling the grievances of their employees. The usual practice was that aggrieved workers approached the manager or the proprietor of the factory in person direct with the complaints which were generally made orally. If a worker was not satisfied with the decision, he usually approached the trade union, if one existed, to take up the matter with the management. Most of the employers stated that the grievances of workers were not many and hence they had not provided any prescribed or regular procedure. Since majority of the complaints were submitted by the workers orally and there was no record, their statement could not be verified. Among large factories also, very few (*i.e.*, 14%) had some prescribed procedure. In 9 per cent. of them standing orders had been framed which prescribed the procedure for redress of grievances. In the rest, workers were required to submit their complaints in writing direct to the manager, who decided them with the assistance of workshop supervisors. In case an employee was not satisfied with the decision he could move the conciliation machinery through union. Elsewhere, workers took their complaint to their immediate superior or in-charge. If not satisfied with the decision he could approach the manager or the employer. Wherever welfare or personnel officers had been appointed, the grievances of workers were being attended to by them.

## CHAPTER VIII

### LABOUR COST

In the course of the Survey, information pertaining to labour cost was collected in respect of those employees in the sampled establishments who were covered under the Factories Act and were receiving less than Rs. 400 per month as wages. This was in pursuance of the decision taken by the Study Group on Wage Costs appointed by the Ministry of Labour and Employment in 1959. The enquiry pertaining to labour cost was modelled on the lines of the study of labour cost in European Industry, made by the International Labour Office in 1956, with such modifications as were necessary in the light of conditions in India. For instance, in view of the fact that in India wages are paid on the basis of 'day' instead of 'hours' as in European countries, the data were collected for the man-days and not man-hours. Similarly, it was found in the course of the pilot enquiry that, but for a very few exceptions, none of the establishments maintained any separate records of premium payments made for leave or holidays or for days not worked and hence these were dropped as separate items and included under 'basic wage'. Certain additions were made in the list either on the basis of the decisions of the Study Group referred to above or for eliciting separate information on some of the items on which employers have to incur expenses under labour laws in force in the country *e.g.*, lay offs, washing facilities, etc.

The Survey was launched late in December, 1959 and ended in June, 1961. With a view to forming a better estimate of labour cost, salaries and allowances, etc., of those persons who were employed in connection with any welfare item, amenity, etc., even though they were covered under the Factories Act and were receiving less than Rs. 400 per month, were not included in the general heads "Wages", "Bonuses" and "Other Payments" along with the similar amounts paid to workers who come within the purview of the study. Expenses incurred in connection with such persons were recorded against the item for which they were employed. Similarly, the man-days of such persons were also excluded. For purposes of collecting labour cost data, the field staff was instructed to obtain figures of expenditure incurred by the employers during the calendar year 1959. Where the financial year of the sampled units was found to be other than the calendar year or where the account books for the specified period were found to be not ready or available for some reasons, then the field staff was permitted to take the information for the latest year for which it was available. The information thus collected shows that barring a few exceptions it was possible to collect data for the calendar year 1959. Thus the statistics given below can be considered to relate to the year 1959.

#### 8.1. Labour Cost per Man-day Worked :

The labour cost per man-day in the industry during 1959 was estimated to be Rs. 4.98. It was higher by 36.1 per cent. in large factories as compared to small ones. In large factories this cost per man-day worked out to Rs. 5.35 as compared to Rs. 3.93 in the small ones.

#### 8.2. Components of Labour Cost :

The following Statement shows the labour cost per man-day worked by components in the Machine Tool Industry :—

# STATEMENT 8.1

## Estimated Labour Cost per Man-day worked by Components—1959

(In Rupees)

Size	Wages	Pre- mium pay for over time or late shifts	Bonus- es	Other cash pay- ments	Pay- ment in kind	Social Security Contributions	Sub- sidies	Welf- are centres non- obl- igatory	Direct bene- fits	Pay- ments related to labour cost	Others	Total	
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(x)	(xi)	(xii)	(xiii)	(xiv)	
						Obliga- tory	Non- obl- igatory						
(a) Large Factories	4.46 (83.36)	0.03 (0.56)	0.32 (5.98)	0.03 (0.56)	*	0.25 (4.67)	0.11 (2.06)	0.14 (2.62)	—	*	0.01 (0.19)	*	5.35 (100.0)
(b) Small Factories	3.71 (94.40)	—	0.04 (1.02)	0.01 (0.25)	*	0.10 (2.54)	—	0.05 (1.27)	—	*	0.02 (0.52)	*	3.93 (100.0)
ALL FACTORIES	4.27 (85.74)	0.02 (0.40)	0.25 (5.02)	0.02 (0.40)	*	0.21 (4.22)	0.08 (1.61)	0.12 (2.41)	—	*	0.01 (0.20)	*	4.98 (100.0)

\*Indicates that the expenditures incurred were less than Re. 0.05 per man-day worked.

NOTE.—Figures in brackets are percentages to total in col. xiv.



**8.2.1. Wages.**—In the present Survey, under the head 'Wages' basic wage, dearness allowance, incentive and production bonus and attendance bonus had been included. It was also desired to collect data under this head in respect of the man-days actually worked but in the course of the pilot enquiry it was found that most of the employers did not maintain separate records of payments made for the days worked and for leave and holiday periods. Consequently, there was no alternative but to record the combined sum paid for the days worked as well as for the days not worked but paid.

From the figures given above it will be noticed that the component 'Wages' alone accounted for almost 86 per cent. of the total labour cost. The proportion was much higher (94.4%) in small factories than in large ones (83.4%).

The Statement below shows the break-up of the figures of "Wages" component by sub-groups *viz.*, basic wages (including dearness allowance), production or incentive bonus and attendance bonus :—

#### STATEMENT 8.2

##### *Estimated Break-up of Wage cost by Sub-Components During 1959*

(In Rupees)

Size	Basic wage and Dearness allowance	Incentive Production bonus	Attendance bonus	Total
(i)	(ii)	(iii)	(iv)	(v)
(a) Large Factories . .	4.06 (91.03)	0.40 (8.97)		4.46 (100.00)
(b) Small Factories . .	3.65 (98.38)	0.06 (1.62)		3.71 (100.00)
ALL FACTORIES . .	3.96 (92.74)	0.31 (7.26)		4.27 (100.00)

\*Indicates that the expenditure incurred works out to less than Re. 0.005 per man-day worked.

NOTE.— Figures in brackets are percentages to total in col. (v).

From the above Statement it will be seen that under the group "Wages" basic wage and dearness allowance alone accounted for 92.74 per cent. and Incentive Production Bonus for the balance. Payments in the form of Attendance bonus were insignificant and hence have not been reflected at all.

**8.2.2. Premium pay for overtime and Late Shifts.**—Under this head, only the premium part of the payments made for overtime or late shift workings were taken into account. For example, if a worker was paid one and a half times his normal rates of wages for working late hours, only the extra amount paid to him, *i.e.*, one half in this case, was treated as the premium pay.

This element of payment has been reflected only in large factories and in those cases also it accounted for an insignificant proportion (0.56%) of

the total labour cost. In the industry, as a whole, it constituted 0.40 per cent. of the total labour cost.

**8.2.3. Bonuses.**—Under this head, data were collected in respect of payments made on account of Festival, Year-end, Profit-sharing and other such bonuses paid each year to employees. Payments made as “Bonuses” formed the third important element of the labour cost, next only to “Wages” and “Social Security Contributions”. It constituted about 5 per cent. of the total labour cost in the industry. Its proportion was more significant (5.98%) in large factories as compared to the small ones (1.02%). In small factories the only expenses under this head were Year-end bonuses, among large undertakings, in addition to the Year-end bonus, the practice of making payments for Festival, Profit-sharing and other types of bonuses was also prevalent.

**8.2.4. Other Cash Payments.**—The figures given in Statement 8.1. show that ‘Other Cash Payments’ constituted the same proportion as premium pay for overtime and late shifts, *i.e.*, 0.40 per cent. of the total labour cost. Expenses recorded under this head generally related to gratuitous payments, tiffin allowance, transport allowance and house rent allowance.

**8.2.5. Payments in kind.**—Very few employers made payments in kind which were generally in the shape of certain food articles supplied to their employees. However since the number of employers making such payments and the amount involved was insignificant, its share to the total labour cost is virtually nil.

**8.2.6. Social Security Contributions.**—Social Security Contributions formed a most important element of labour cost next only to ‘Wages’ and constituted 5.83 per cent. of the total labour cost in the industry. Information in respect of this component of labour cost was collected under two heads: (a) Obligatory—*i.e.*, those expenses which the employers were required to incur in compliance with certain labour laws, and (b) Non-obligatory—*i.e.*, those which the employers were incurring on a voluntary basis. The following Statement shows the estimated cost of Social Security Contributions under each item for which information was collected :—

### STATEMENT 8.3

#### *Estimated Cost of Social Security Contributions per Man-day worked in 1959*

Size	Obligatory										Non-obligatory	Total for obligatory and non-obligatory	Percentage of Social Security Contributions to the total labour cost	
	Provident Fund	Retrenchment Compensation	Lay-off	Employees' State Insurance Contributions	Compensation for			Maternity Benefits	Dependents Allowance	Others				Total
					Employment Injury	Occupational Diseases								
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	
(a) Large Factories	0.20 (80.00)	—	*	0.05 (20.00)	*	—	*	*	—	0.25 (100.00)	0.11	0.36	6.73	
(b) Small Factories	0.01 (10.00)	0.07 (70.00)	*	0.02 (20.00)	*	—	*	*	—	0.10 (100.00)	—	0.10	2.54	
ALL FACTORIES	0.15 (71.43)	0.02 (9.52)	*	0.04 (19.05)	•	—	•	*	—	0.21 (100.00)	0.08	0.29	5.83	

\*Indicates that the expenses incurred were less than Re. 0.005 per man-day worked.

NOTE.—Figures in brackets are percentages to col. (xi).

It will be seen from the Statement 8.3 that the labour cost on account of obligatory social security contributions mainly consisted of provident fund (71%), retrenchment compensation (10%) and Employees' State Insurance Contributions (19%). As regards the non-obligatory social security contributions, an estimated amount of Re. 0.08 per man-day was being spent by one of the large factories surveyed and was mainly in the shape of gratuity payments.

**8.2.7. Subsidies.**—Expenses recorded under the head "Subsidies" related to amount spent by employers in providing various types of facilities and services for employees and their family members. These were Medical and Health Care, Canteens, Restaurant and Other Food Services, Company Housing, Building Fund, Credit Unions and Other Financial Aid Services, Creches, Educational Services, Cultural Services (Library, Reading Room, etc.), Recreational Services (Clubs, Sports, Cinema, Theatre, etc.), Transport, Sanitation (at work places), Drinking Water Facility, Vacation Homes, etc. The amounts recorded were net payments made, including depreciation, but not capital expenditure.

In the course of the pilot enquiry it was experienced that employers did not maintain separate records for the above mentioned items or the expenses incurred related not only to persons falling within the scope of the study but also to others. Due to these limitations the field staff was asked to obtain estimates from employers, wherever separate data were not available. In case any expenses were incurred on workers covered by the study as well as on other employees, the amount was estimated on the basis of the proportion which the persons covered under the Study formed to the total employees. The following Statement presents the cost of subsidies per man-day worked in the industry :—

#### STATEMENT 8.4.

*Estimated Cost of Subsidies per Man-day worked in 1959.*

(In Rupees)								
Size	Medical and health services	Canteens	Restaurant and other food services	Company housing	Creches	Cultural services	Recreational services	Transport services
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(a) Large Factories	0.05 (35.72)	0.04 (28.57)	*	*	—	*	0.02 (14.29)	—
(b) Small Factories	0.01 (20.00)	—	*	*	—	—	*	—
ALL FACTORIES	0.04 (33.34)	0.03 (25.00)	*	*	—	*	0.01 (8.33)	—

## STATEMENT 8.4. (concl'd.)

Size	Sanitation	Drinking Water	Credit Unions, Building Funds, Educational Services, Vacation Homes, Other Family Services	Total	Percentage of subsidies to total labour cost
	(x)	(xi)	(xii)	(xiii)	(xiv)
(a) Large Factories .	0.01 (7.14)	0.01 (7.14)	0.01 (7.14)	0.14	2.62
(b) Small Factories .	0.03 (60.00)	0.01 (20.00)	*	0.05	1.27
ALL FACTORIES . .	0.02 (16.67)	0.01 (8.33)	0.01 (8.33)	0.12	2.41

NOTE.—Figures shown in brackets are percentages.

\*Indicates that the expenditures incurred were less than Rs. 0.005 per man-day worked.

The cost of subsidies formed 2.41 per cent. of the total labour cost in the industry. The percentage was higher in the case of large factories as compared to small ones. Under the subsidies group, the highest expenditure was on Medical and Health Services, constituting 33.34 per cent. of the total expenses under the group. Next in the order were Canteens (25%), Sanitation (16.67%), Recreational Services and Drinking Water Facilities (8.33% each).

**8.2.8. Payments related to labour cost.**—Under this group, expenses relating to Recruitment, Vocational Training, Apprenticeship and on-the-Job Medical Services were recorded. A perusal of the Statement 8.1. (col. xii) will show that this element constituted only 0.20 per cent. of the total labour cost in the industry. The main items of expenditure under this group, as revealed by the Survey, were (a) Apprenticeship and Training (57%); (b) Cost of Recruitment (3%); and (c) on-the-Job Medical Services (40%). Since there was no arrangement for vocational training in the industry, no amount was reported under this sub-group.

**8.2.9. Others.**—Besides expenses mentioned under various groups mentioned above, some of the employers reported some expenditure on celebrations of certain festivals, etc., (e.g., Vishwa Karma Puja and Diwali) and certain payments to workers in token of good performance or service. All these were recorded under the head "Others". But these expenses or payments were so insignificant and few that they have not been reflected at all in the labour cost.

## CHAPTER IX

### SUMMARY OF CONCLUSIONS

Although Machine Tool Industry is an old industry of India, but it was only after the Second World War and specially after the country entered the age of planned economic development, that it made rapid progress. At the beginning of the First Five Year Plan, there were 174 registered factories in the country employing 6,118 persons. By the end of 1961, the number of registered factories had risen to 483 with an average daily employment of 20,051, thus recording nearly a three-fold increase both in the number of factories and employment.

The data collected in the course of the Survey show that on 31st December, 1959, the estimated total number of persons employed in the industry was 12,417. Of these, nearly 83 per cent. were "Production and Related Workers", "Clerical and Related Personnel" constituted the next important group and accounted for 6.5 per cent. of the total, followed by "Watch and Ward and Other Services" which formed 5.8 per cent. of the total. The other groups accounted for the rest.

Almost the entire working force in the industry consisted of men, the number of women being negligible and children totally absent. Although about 14 per cent. of factories were found to be employing contract labour, the proportion of such labour was very insignificant. The predominant system of payment was by time and it covered about 97 per cent. of the workers in the industry.

Information collected in the course of the Survey in respect of employment status of production workers employed directly by managements shows that 67 per cent. of workers in the industry were permanent and about 22 per cent. were treated as temporary.

About two-thirds of production workers in the industry had less than five years' service to their credit and about one-fifth had put in over 10 years' service. The higher proportion of workers with shorter length of service seems to be due to the fact that most of the machine tool factories came into existence only recently. Such a conclusion is supported by quite a low rate of labour turnover in the industry. The accession and separation rates were of the order of about 6 per cent. during the year, 1959.

The average absenteeism rate in the industry during the same period viz., calendar year 1959, was 10.8 per cent. The monthly rates reflected the usual pattern of higher absences during summer months and sowing and harvesting seasons.

There has been no standardisation of wages in the industry on a country-wide basis. Barring factories in Punjab State, where minimum wages were fixed in 1958 for certain broad categories of workers, elsewhere wage structure was found to have developed either on the basis of the prevailing rates of wages in the area or bargaining between employers and workers. It is estimated that since 1956 wage revisions affecting majority of the workers took place in roughly one out of every six factories in the industry

and in three-fourths of the factories such revisions took place only once. Majority of the wage revisions were as a result of agreements between employers and employees.

The estimated average daily earnings of workers in machine tool factories in the country were Rs. 4.24 in December, 1959. Similar earnings of directly employed men and women production workers and the lowest-paid production workers were estimated to be Rs. 4.19, Rs. 2.58 and Rs. 2.39 respectively.

Considerable disparities existed between the earnings of workers employed in factories of different size-groups because large factories were generally located in big cities where wage level was comparatively high whereas small factories were generally located in low-wage areas. The disparity in the earnings of the lowest-paid men and women workers is mostly due to the differences in the nature of work on which they were engaged.

The average daily earnings of Clerical and Related Employees and of those belonging to the group 'Watch and Ward and Other Services' were Rs. 4.99 and Rs. 3.06 respectively in December, 1959.

With the exception of 16 per cent. of factories in the country, where some laxity in the observance of timings was noticed, all were found to be generally complying with the provisions of the law concerning hours of work, rest-interval and spreadover. While a large majority of small factories worked only one shift, of the large factories only about two-thirds worked one shift and the rest two or three shifts. Nearly one out of every ten factories worked night shift and one-third of them had a regular system of transferring workers from one shift to another after every week. The system of providing certain amenities or paying cash allowance to night shift workers was found to be in vogue in about 42 per cent. of factories working night shift. A few had even reduced hours of work.

Only about 16 per cent. of the factories in the industry had made suitable arrangements for sitting for all such workers as were obliged to work in a standing position.

In the matter of such basic amenity as latrines, nearly one-fourth of the factories were found to be defaulters. The defaulters were mostly small factories. The type of arrangements made varied considerably. In nearly 9 out of 10 factories, the privies were properly screened but the position in regard to provision of taps was not satisfactory in more than half the units. Arrangements for urinals were found to have been made in 61 per cent. of the factories and nowhere separate arrangements existed for women workers. In about 60 per cent. of the factories providing latrines and urinals, the sanitary condition was found to be satisfactory.

Nearly one-fourth of the factories, it is estimated, were ignoring the provisions of the Factories Act in regard to the grant of annual leave to their employees. Data collected regarding the number of workers who availed of leave show that about 75 per cent. of workers had enjoyed leave during the year 1959 and majority of them took 11 to 15 days' leave.

The system of granting casual leave with pay was found to be in vogue in about one-third of the factories in the industry. However, the number of days allowed and the categories entitled to leave generally differed from

one factory to another. Managements of only 5 per cent. of factories were granting sick leave with pay.

It is estimated that the practice of granting national and festival holidays with pay existed in 86 per cent. of the factories. The number of holidays allowed in a year ranged from 2 to 20 but nearly 88 per cent. of the factories granted up to 10 holidays. All the factories were complying with the provisions of the Factories Act regarding weekly offs.

Except for about 4 per cent. of the factories, all others were found to have provided drinking water facilities for their employees and in about half of them the arrangements were in the form of tube wells or wells. About two-thirds of the factories in the industry also stated that they had some arrangements for the supply of cool drinking water during summer months. These arrangements were mostly in the form of earthen pitchers. Only a few factories had installed mechanical coolers.

Washing arrangements in one form or the other were also available to workers in about 60 per cent. of the factories in the industry and about half of them also supplied some sort of cleaning material like soap, waste cotton or oil. Bathing facilities existed in about 16 per cent. of the factories and lockers had been provided in only a few factories.

Canteens were found to be functioning in all the establishments which were under a statutory obligation to do so. A few others had also provided this facility. Thus, in the industry, as a whole, about 5 per cent. of factories had canteens. Half of these canteens were being run by the contractors and the rest either by the managements or workers' co-operatives. Most of the canteens sold tea, coffee and snacks at market rates and only one-fourth served meals as well. The hygienic conditions of about 25 per cent. and location of about half of the canteens was not satisfactory. None of the factories which were under a statutory obligation had built any rest shelter.

First-aid boxes were being kept in 90 per cent. of the factories in the industry, but in only 35 per cent. of these factories they were found to be containing the prescribed items and in 37 per cent. they were under the charge of trained first-aiders. Ambulance room was being maintained by one factory which was statutorily required to do so. Dispensaries were being maintained by a few employers only. One of the large factories covered also maintained a hospital for the treatment of workers.

Facilities for in-door and out-door games were provided to workers by one-fifth of large factories alone in the industry and in only half of them, they were available to all workers. Quite a good number of other factories in the country were occasionally arranging film shows or dramatic performances and were organising religious, social or some annual functions.

Arrangements for the education of workers' children existed in only one large factory covered during the Survey. This factory was running a primary school, where free education was being imparted. None of the factories surveyed had made any arrangements for adult education. Only two of the large factories surveyed had Co-operative Societies, giving an overall percentage of 2.6 for the entire country.

The information collected on housing shows that about one-fifth of the factories in the industry were providing housing accommodation to their employees. However, the benefit was not very extensive as only a very small proportion of the total working force had been housed.



The security against the contingency of old age which the workers in the industry enjoy seems to be entirely due to the Employees' Provident Funds Act, 1952, since none of the establishments covered in the course of the Survey had any provident fund scheme prior to the enforcement of this Act. At the time of the Survey, the Scheme as framed under the Act was in force in about 16 per cent. of the factories in the country. It is estimated that 54 per cent. of the workers in the industry were members of the fund on 31st December, 1959.

There was no scheme for payment of pension in any of the factories covered. However, the system of paying gratuity was found to be in vogue in about 7 per cent. of the factories in the industry and they covered all workers.

On the basis of the information relating to industrial accidents collected in the course of the Survey, it is estimated that in 1959 such accidents occurred in 28.5 per cent. of the machine tool factories in the country and the proportion of workers involved in accidents was 29 per thousand employed. About 98 per cent. of workers were involved in minor accidents causing only temporary disabilities. No cases of occupational diseases were reported by any of the factories covered.

Trade unionism seems to have developed fairly well in the industry. It is estimated that 32 per cent. of the factories had trade unions and about 43 per cent. of workers were members. The proportion of factories having unions and the workers who were members of unions was considerably higher in large factories. Managements of 53 per cent. of the factories having unions had accorded recognition. In small factories the main activities of unions were securing of claims of their members under various Labour Acts and provision of financial assistance to members in times of strikes or lockouts. The scope of activities of unions functioning in large factories, however, was wider. Quite a good proportion of them were providing recreational and educational facilities and running libraries and reading rooms.

It is estimated that during the period 1956 to 1960 collective agreements were concluded in about 13 per cent. of the factories in the industry.

Standing Orders were found to have been framed in only 40 per cent. of the factories which were under a legal obligation to do so. Of the remaining factories, one-third were reported to be following the model rules framed by the State Government. Everywhere the Standing Orders were duly certified and covered only production workers.

All the factories employing 500 or more workers had appointed Welfare Officers. A few others had also done so although they were not under any legal obligation. However, the percentage of factories which had appointed such officers was quite small.

Works Committees were found to have been constituted in only 40 per cent. of those establishments which were required by law to do so, thus giving a percentage of about 14 for the industry in the country. Only a few factories had constituted other committees viz., Negotiation Committees, Promotion Committee or Recruitment Committees.

Information collected regarding the system of settling grievances of workers in the industry shows that except for a very few large factories

(14%), nowhere there was any prescribed or systematic arrangement. The general practice was that the aggrieved worker approached the manager or proprietor and made an oral or written complaint.

Data relating to labour cost in respect of persons covered under the Factories Act and receiving less than Rs. 400 per month show that during the year 1959 the labour cost in the industry per man-day worked was Rs. 4.98. The cost was as high as Rs. 5.35 per man-day worked in large factories as against Rs. 3.93 in small establishments. Wages, *i.e.*, basic wage, dearness allowance and incentive payments, constituted the main component and accounted for nearly 86 per cent. of the total cost. Its proportion was much higher in small factories (94%) than large ones (83%). Bonuses and Social Security Contributions accounted for about 5 and 6 per cent. respectively. Expenses falling under the group 'Subsidies' constituted about 2.4 per cent. of the total.



## APPENDIX

### **A Brief Note on the sample design and the method of Estimation adopted**

#### **1. Sample Design :**

For the Survey of Labour Conditions, a stratified sampling design with industry as a stratum, with further regional strata for those industries which were found to be highly concentrated in particular regions or areas, was followed. The registered factories belonging to those industries for which regional stratification was found necessary were stratified and each centre or area of high concentration was taken as a separate regional stratum of the industry and the remaining scattered factories were clubbed together into a single residual stratum. Units in each industry/regional stratum were divided into two size-groups *i.e.*, upper and lower. The cut-off point used for the classification of units into two size-groups was the same as used for the Wage Census conducted by the Bureau in 1958-59. However, in the case of this industry there was no regional stratification and sample units were selected from the All-India list.

In regard to sample size, it was thought that a sample of 25 per cent. from upper size group and 12½ per cent. from the lower size-group would yield reasonably good results. However, the experience of earlier Surveys had shown that in view of non-availability of up-to-date frames, quite a large number of sampled establishments were found to have ceased functioning or to have changed the line of production when they were visited. In order to safeguard against undue shrinkage of the sample size due to such contingencies, it was decided to enlarge the sample size suitably in the light of the experience of the Wage Census conducted by the Bureau and on the basis of a study of closures of establishments in the past few years as revealed from the annual list of registered factories. In the case of machine tool factories the sampling fraction thus ultimately adopted was 33.3 per cent. for the upper size and 16.8 per cent. for the lower size.

The ultimate sampling units, namely registered factories, within an industry/regional stratum were arranged by contiguous States and within each State by contiguous districts in a serpentine fashion so that districts formed a continuous chain from one State to another. Having arranged the list of units in the above manner, the units above the optimum cut-off point were taken in the upper-size class and the rest in the lower-size class. From these size-groups, the required number of units were selected by systematic sampling with a random start. The frame on the basis of which the sample was selected in the case of machine tool factories was the list of registered factories for the year 1958.

#### **2. Method of Estimation :**

In the course of this Survey, various characteristics were studied, some of which were correlated with employment whereas there were others which were not so correlated. Consequently, slightly different methods were used for working out estimates for these two cases. For estimating the totals of those characteristics which are highly correlated with employment such

as absenteeism, labour turnover, earnings, labour cost, ratio of total employment was used as the blowing up factor. On the other hand, for estimating the totals of those characteristics which are not directly correlated with employment such as, daily hours of work, units levying fines, etc., the ratio of units was used as the blowing-up factor. Estimates of percentages have been arrived at by computing in each case the ratio of the estimates of the totals for the two characteristics involved.

More precisely, the estimates for the total (for all-India) of a particular characteristic not correlated with employment in the industry has been obtained as:

$$X = \frac{N_u - N'_u}{n_u - n'_u} \sum X_{iu} + \frac{N_l - N'_l}{n_l - n'_l} \sum X_{il} \dots \dots \quad (1)$$

The summation extending over all the sampled units surveyed in the industry.

Where  $X$  = the estimated total of the  $x$  characteristic for the industry.

$N_u$  and  $N_l$  = the number of units in the original population as featuring in the 1958 list, which was used as frame, in the upper and lower size-groups respectively of the industry.

$N'_u$  and  $N'_l$  = the number of units which featured in the 1958 list but were not featuring in the list relating to the period more or less coinciding with the period of the Survey in the upper and lower size-groups respectively of the industry.

$n_u$  and  $n'$  = the total number of units in the sample (from 1958 list) in the upper and lower size-groups respectively of the industry.

$n'_u$  and  $n'_l$  = the number of sampled units, which were found at the time of the survey to be closed or to have changed the line of production and hence left out in the upper and lower size-groups respectively of the industry.

$X_{iu}$  and  $X_{il}$  = the total of the characteristic  $x$  in the  $i$ -th sample unit of the upper and lower size-groups respectively of the industry.

In the industry the estimate for the characteristic  $y$  correlated with employment is given by

$$Y = \frac{E_{N_u} - N'_u}{E_{n_u} - n'_u} \sum Y_{iu} + \frac{E_{N_l} - N'_l}{E_{n_l} - n'_l} \sum Y_{il} \dots \dots \quad (2)$$

The summation extending over all sampled units surveyed in the industry.

Where  $Y$  = the estimated total of the characteristic  $y$  for the industry.

$E_{N_u} - N'_u$  and  $E_{N_l} - N'_l$  = the total employment in 1958 in the  $N_u - N'_u$  and  $N_l - N'_l$  units respectively of the industry.

$E_{n_u - n'_u}$  and  $E_{n_l - n'_l}$  = the total employment in 1958 in  $n_u - n'_u$  and  $n_l - n'_l$  sampled units respectively of the industry.

$Y_{iu}$  and  $Y_{il}$  = the total of the characteristic  $y$  in the  $i$ -th sampled unit of the upper and lower size-groups respectively of the industry.



